

Mamiya

SERVICE INSTRUCTIONS

for

Mamiya m645

- **AE Prism Finder**
- **CDS Prism Finder**
- **PD Prism Finder**


Mamiya
CAMERA CO., LTD
TOKYO, JAPAN

General Specifications
for
AE Prism Finder

Specifications

Viewfinder: Pentaprism type with correct, upright image. The magnification ratio is 0.74x with the standard lens focused at infinity.

Metering system: Center-weighted, averaged TTL open-aperture metering.

Control system: Aperture-priority, shutter-speed control.

Shutter coupling range: 2-1/1000 second.

Light measuring range: (ASA 100)

EV2.85-EV17 with f/1.9 lens (f/1.9, 1/2 sec. to f/11, 1/1000 sec.).

EV4-EV18 with f/2.8 lens (f/2.8, 1/2 sec. to f/16, 1/1000sec.).

Film sensitivity range: ASA25-ASA6400.

Aperture coupling range: Couples at all apertures of all available lenses.

AE lock: Pressing the AE lock button locks in the exposure value. AE control returns when the lock button is released.

How to connect measuring instruments

- A. Set SLS-7 Dummy body, SLS-8 Digital multi tester and SLS-9 Regulated D.C. power supply to U-7 Light source box and EE-tester and wire those cords as shown in the Fig. 1.

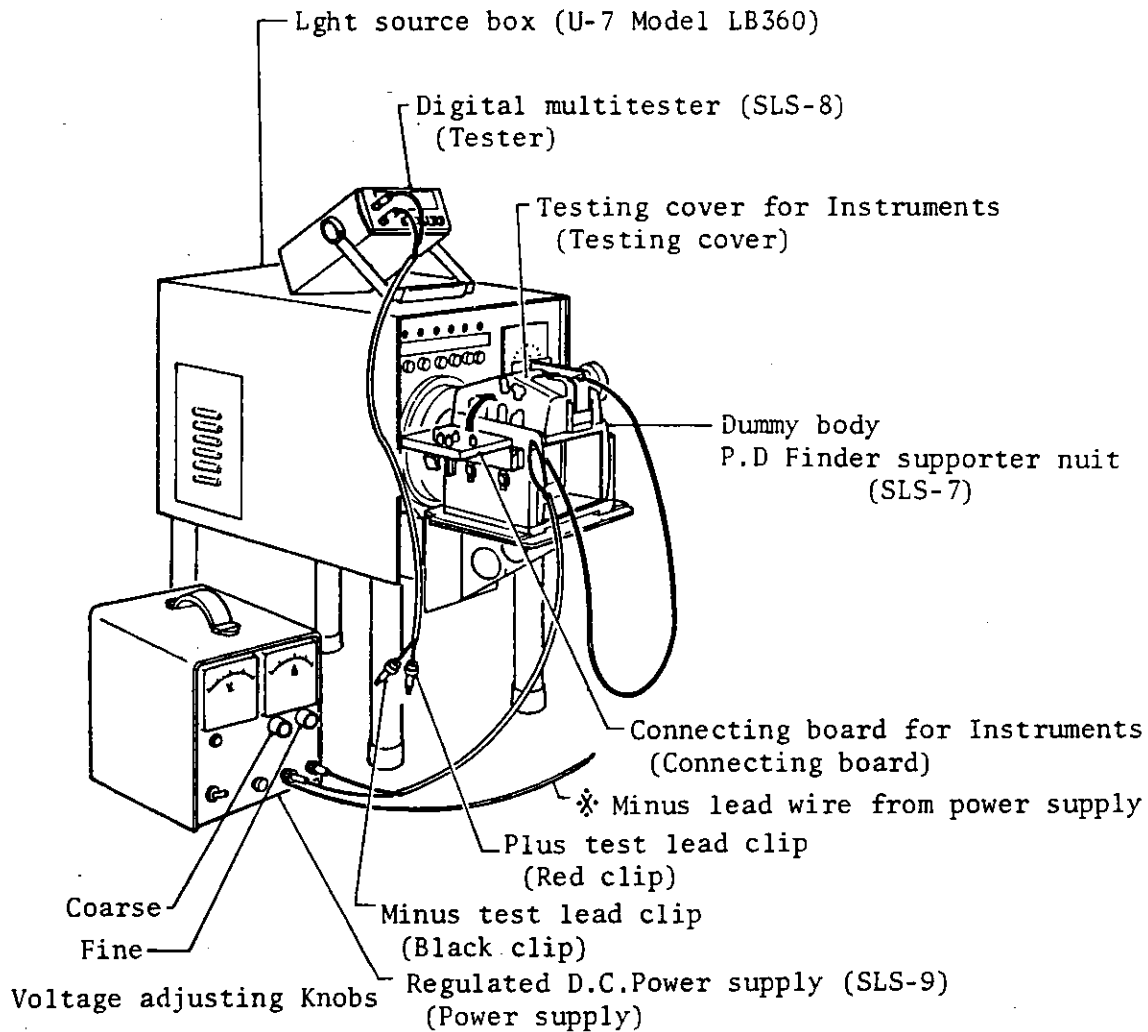
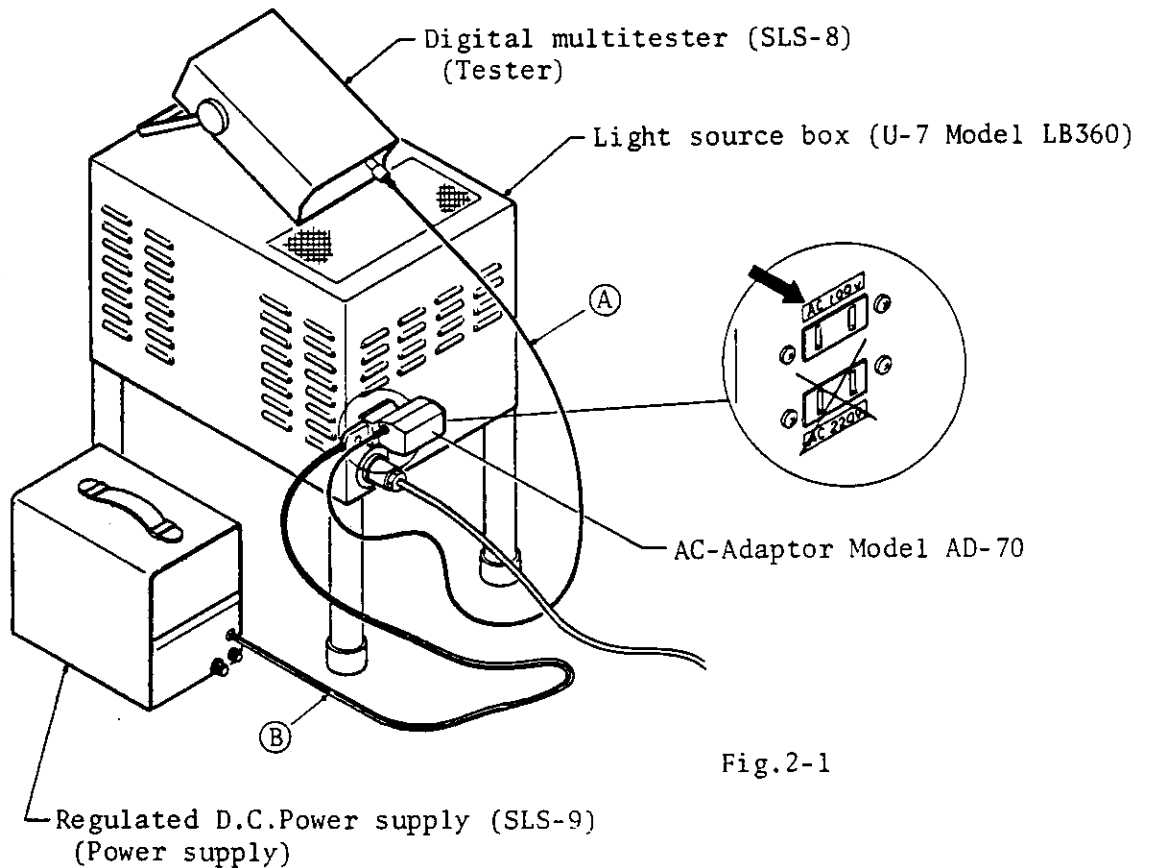


Fig.1

Note: When measuring the P.D. prismfinder with SLS-8 Digital multi tester, the minus, lead wire from SLS-9 can be used for minus terminal.

B. How to connect electric power cords:

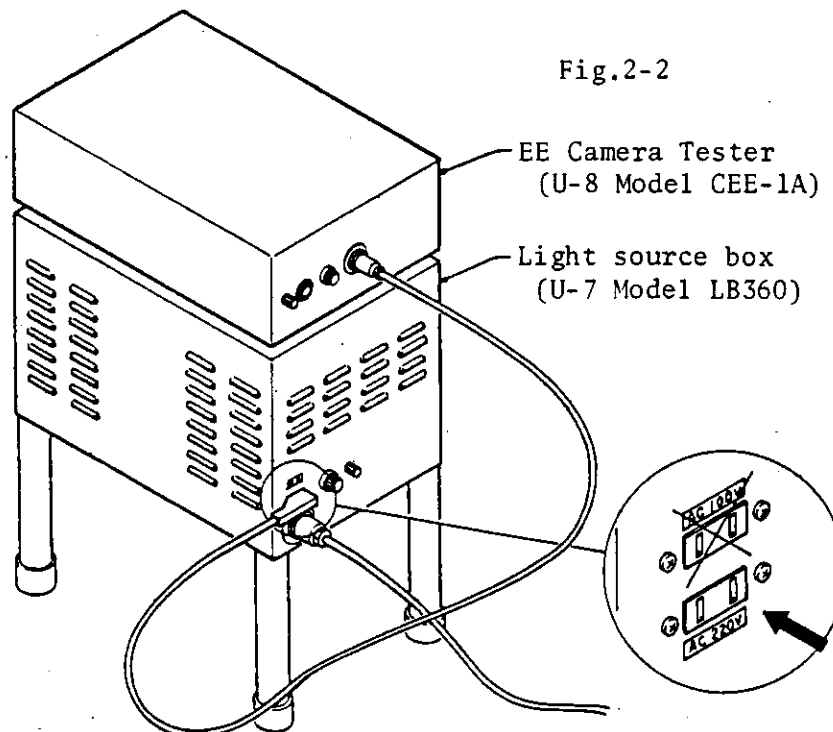


Connect the electric power cords (A) and (B) to the wall socket for AC 100V on back of the U-7 Light source box as shown in the Fig. 2-1.

※Very important note:

Never put the above mentioned two cords into wall socket for AC-200V.

The wall socket for AC-200V is for only EE-Camera tester (U-8 Model CEE-1A) as shown in the Fig.2-2.



Repair Manual
for
AE Prism Finder

Electric Circuit Diagram for AE Prism Finder

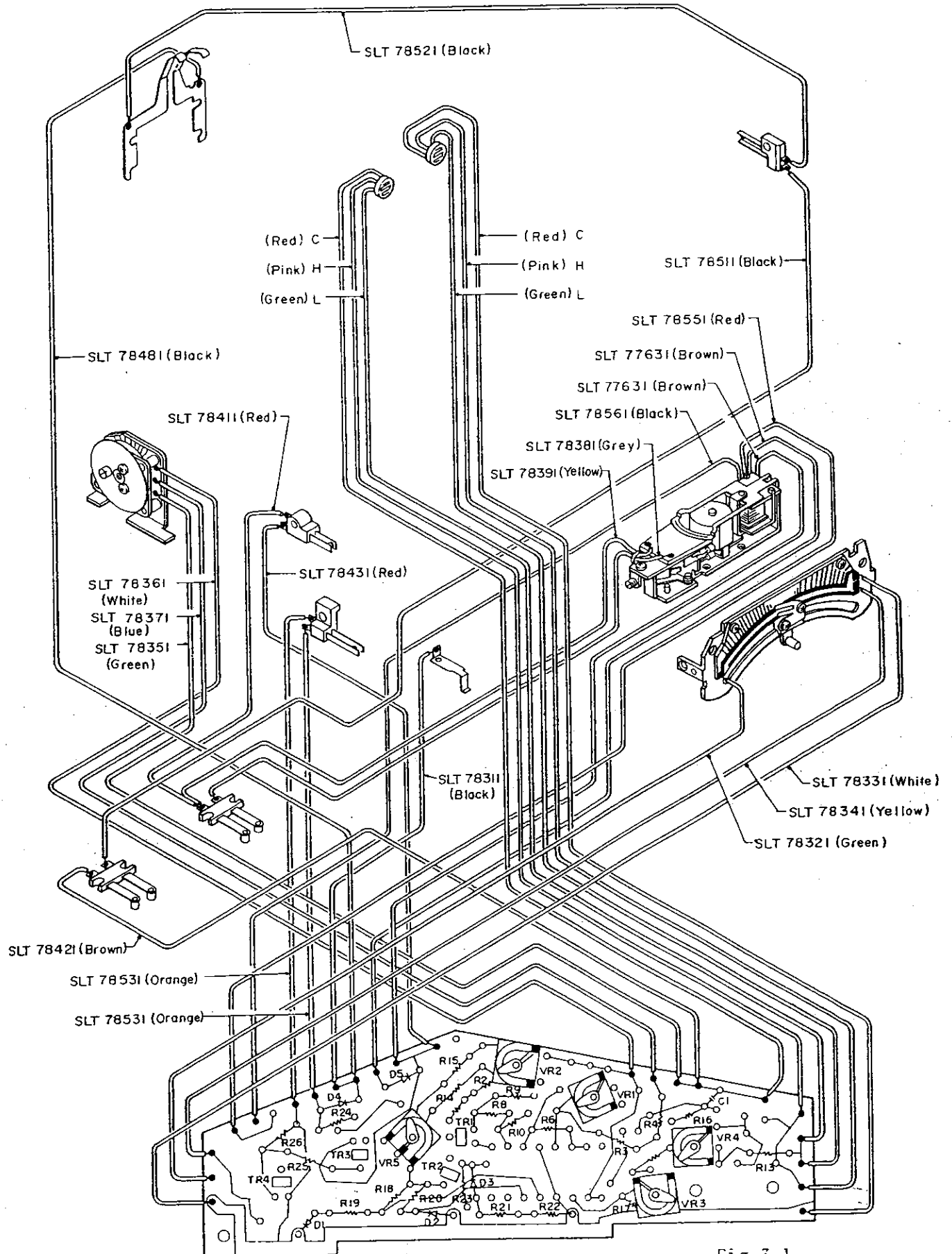


Fig.3-1

<u>1. Disassembly and reassembly of Top cover and Exposure meter</u>	
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[illegible]

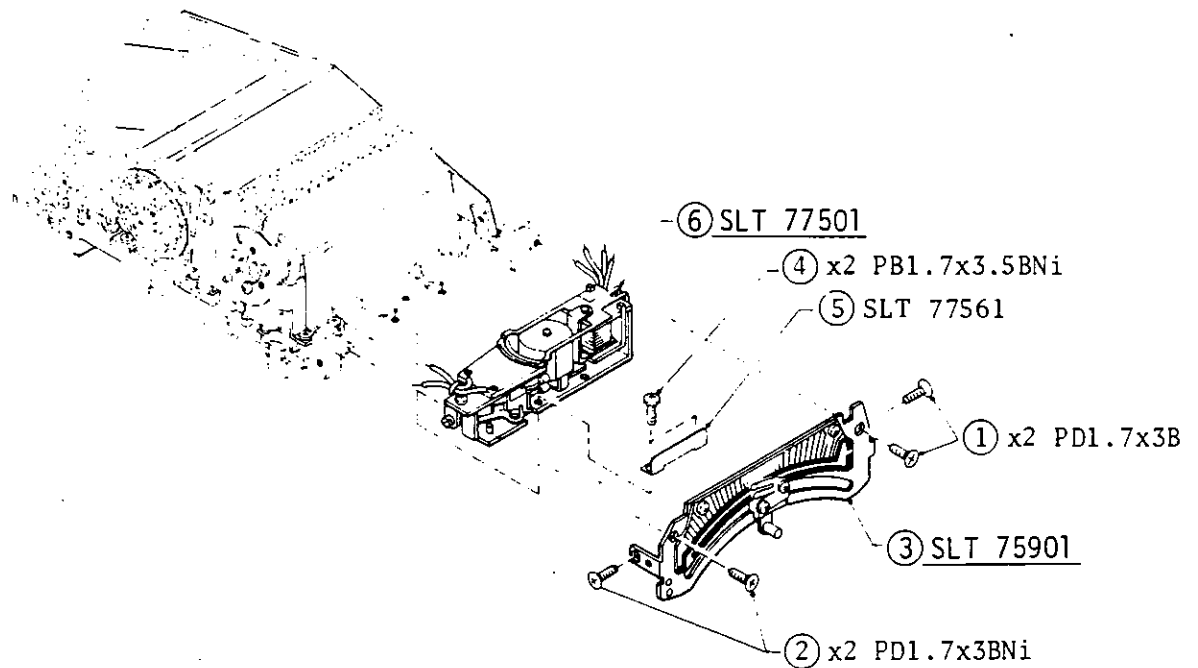
A. Disassembly



B. Reassembly

-12-

A. Disassembly



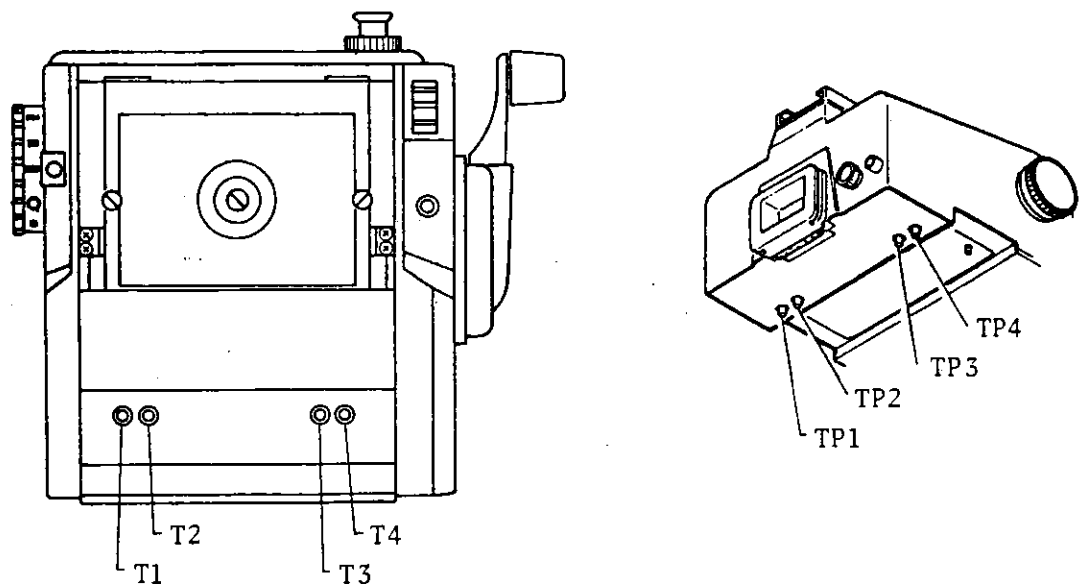
The arabic numeral in a circle as shown in the Fig. 5 indicates the procedure of disassembly.

Note: Unsolder six lead wires for the exposure meter preveously.

B. Reassembly

Reassembly is normally the reverse of disassembly.

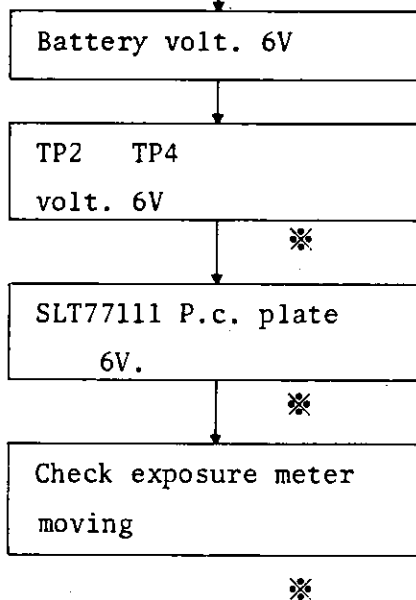
Note: Terminals between camera body and AE finder.



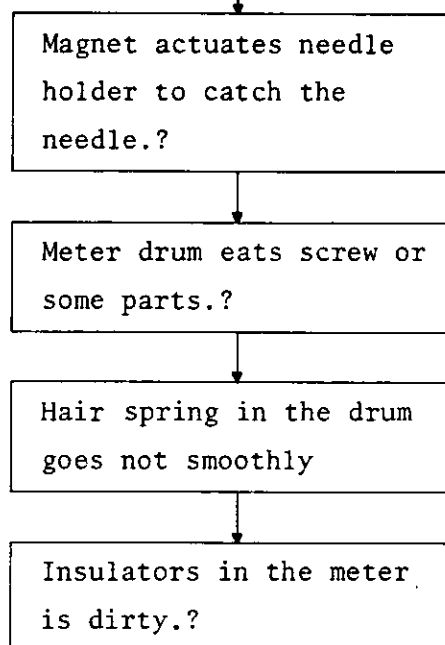
2. Trouble shooting

2-1 General check

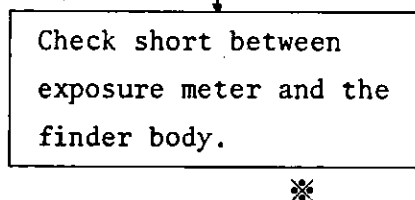
Exposure needle does not work



Exposure needle sticks or stops on the way



Exposure needle jumps up



Note: Please refer to step 2-2 and 2-3 for checking points with mark※

When turning aperture ring,
exposure needle does not move.

Mal-solder or broken lead
wire for exposure meter ?

SLT77111 P.c. plate is
good ?

When changing ASA value,
exposure needle does not move.

Mal-solder or broken lead
wire for SLT76401 ASA P.c.
plate ?

SLT77111 P.c. plate is
good ?

When releasing shutter,
inaccurate shutter speeds
are. ?

Stained
Exposure meter upper
needle and S. printed
circuit plate terminals ?

TP1 ~ TP2
2M Ω ?

NO

Mal-solder or broken lead wires for TP1
gray and TP2 yellow ?

※ See 2-2

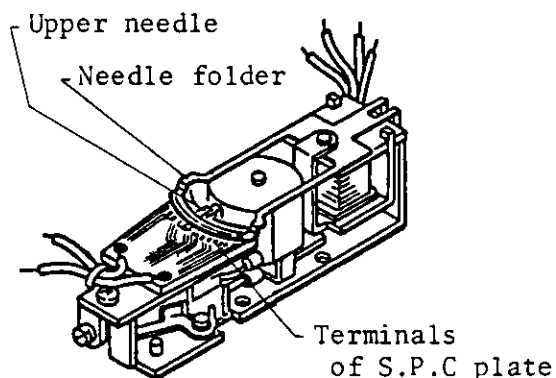


Fig.6

Mal-function of switch dial
ON and OFF

Mal-solder or braken
lead wire for CSL1541S1
Main switch ?

Stained Main switch
contacts and contact
efficiency ?

Married contacts ?

When switching ON AE lock
button does not react.

Mal-solder or broken
lead wire for SLT7741S1
AE lock switch ?

Stained switch contacts
and its contact effi-
ciency ?

Mal-function of exposure
meter magnet ?

✱

When switching OFF, red mark
does not appear in the finder

SLT77951 Spring is out
of place ?

Electric flash does not
go at hot shoe ?

Stained terminals T3
and TP3 ?

Mal-solder or broken lead
wire for SLS73311
Hot shoe contact and
SLS73341 Hot shoe
earth ?

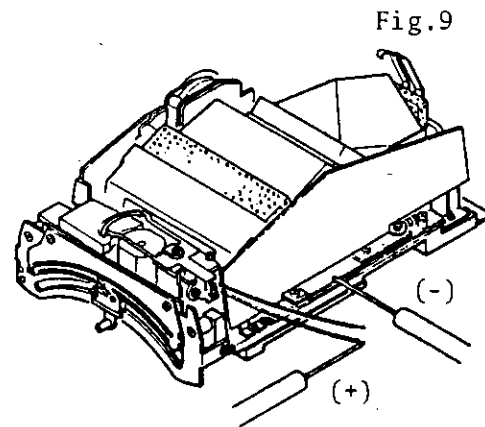
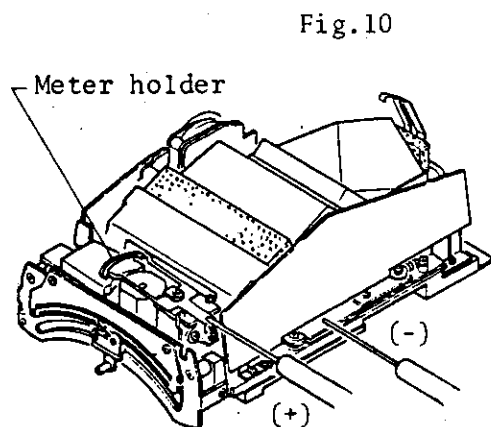
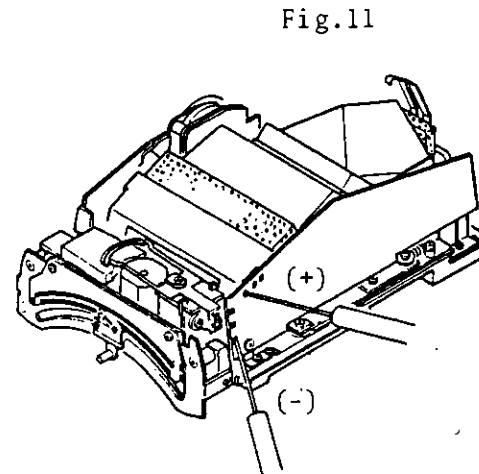
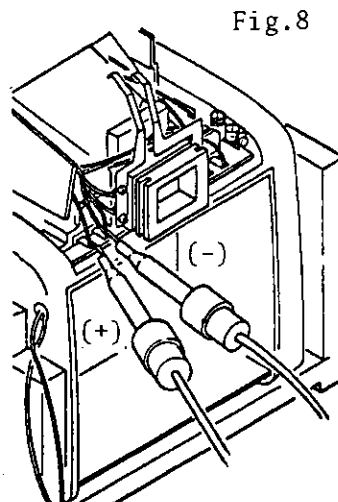
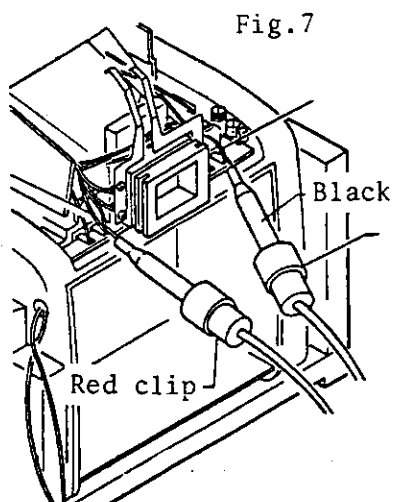
Both contacts touch to
Hot shoe enough ?

Mal-solder or broken
lead wire for SLS6572S1
Sub. switch ?

Stained Sub. switch and
contact efficiency ?

2-2 Check by tester

Tester terminals		Battery	Tester indicates	Step
Red (+)	Black (-)			
TP2	TP4	Yes	6 volt	Clean up T2, T4, TP2 and TP4 terminals
TP1	TP2	No	2 MΩ	Check mal-solder and broken lead wire for TP1 and TP2.
Red lead wire of the meter	Body earth	No	Must not have short	
Black " " "				
Meter needle holder and body earth		No	Must not have short	
Refer to the Fig.		Yes	6 volt	If not 6 vot on the SLT77111 P.c. plate, change it to new one.



2-3 Checking exposure meter by 6 volt battery.

Unsolder red and black lead wires of exposure meter from the P.c. plate.

Then give about 300μ A to the meter in the circuit as shown in the Fig. 12.

In above test, the exposure meter must move.

If not, the meter is wrong.

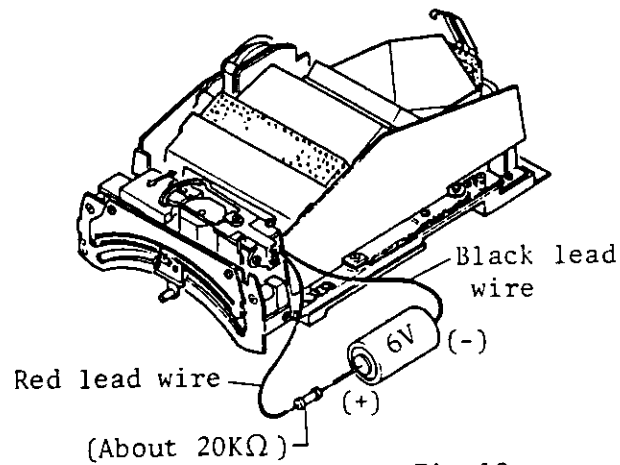


Fig.12

Unsolder two brown lead wires of exposure meter magnet from the P.c. plate.

Then connect them with 6 volt, battery directly as shown in the Fig. 13.

In above test, the meter needle holder must operate.

If not, the meter is wrong.

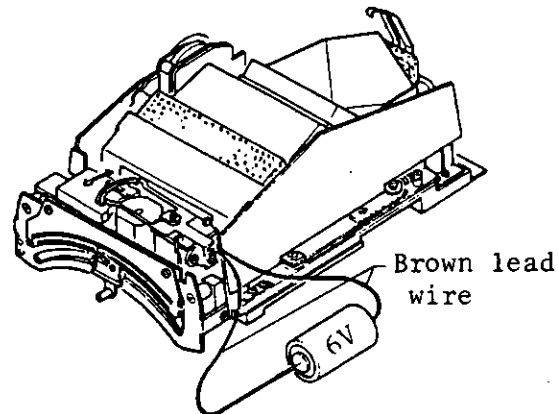


Fig.13

3. Check and adjustment of exposure meter

3-1 Check and adjustment No.1

(Circuit for SLT77501 Exposure meter)

° Regulated D.C. Power Supply6 volt

° Digital multitest terminal:

Red(+). TP2

Black(-). TP4

° Switch dial. ON

EV	ASA	F.No.	Exposure needle	Adjustment
5	100	8	2sec	VR5
15			1/500	VR2
12			1/60	VR5
11			1/30	
9			1/8	
7			1/2	

1) At EV5:

a. Check

Exposure needle in the finder should point "2" sec.

Note: After setting the light source box to EV5, it must be checked thirty second later.

Cover the AE, P. finder with working top cover or a piece of black cloth for intercepting external light.

Whenever checking or adjusting, never forget to do it so.

b. Adjustment

Adjustment is made as the needle points "2" by VR5.

2) At EV15

a. Check

Exposure needle in the finder should point "1/500" sec.

b. Adjustment

Adjustment is made as the needle points "1/500" sec.

3) Check and adjust it at EV12, 11, 9 and 7 equally.

Adjustment must be made by VR5.

3-2 Checking output of exposure meter.

(Measurement of each terminal resistance on exposure meter printed circuit)

EV	ASA	F. NO.	Exposure needle	Limit of resistance (K Ω)		
				Stand.	Max	Mini
15	100	8	1/500	2.0	1.0	4.0
12			1/60	16.0	8	32.0
11			1/30	32.0	16	64
9			1/8	128.0	64	253
7			1/2	503.0	253	1.6M Ω
5			2sec	2.0M Ω	1.0M Ω	2.1M Ω

° After adjusting step "3-1", check "3-2".

° Unsolder gray lead wire from the TP1.

° Digital multitester terminal

Red (+)Gray lead wire

Black (-)TP2. See Fig. 14.

1) Check

Measure the resistance by pushing the AE button at each EV.

2) Adjustment

If it is out of limit adjust it by the VR5 and VR2 as referring to the step "3-1".

Note: If the exposure needle points a little bit leftside or rightside of F. number figures, it should be OK, because the resistance value in the step "3-2" is more important.

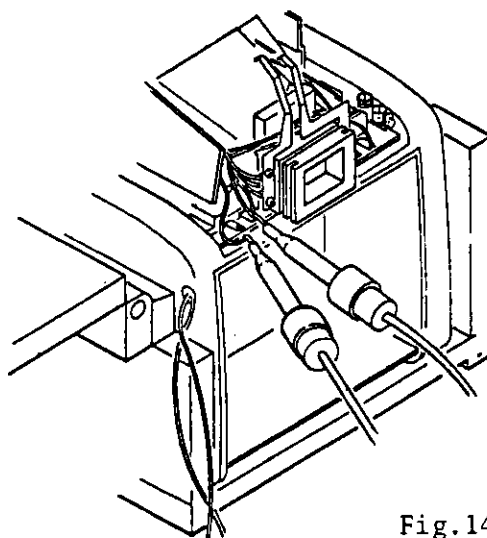


Fig.14

3-3 Check and adjustment NO. II

(For circuit of SLT75901 Aperture printed circuit and SLT76401 ASA unit)

After completing the step "3-1" and "3-2", perform this step 3-3.

° Digital multitester terminal

Red (+)TP2

Black (-).....TP4

° Set the switch dial of
AE.P. finderON

° Regulated D.C.P.
Supply6V

EV	ASA	F. NO.	Exposure needle	Adj.
11	25	16	1/2	VR1
	6400		1/500	VR5
	100		1/8	
	400		1/30	
	1600		1/125	

1) At ASA 25

a. Check

The exposure needle in the finder should point "1/2" sec.

b. Adjustment

Adjustment is made as the needle should point "1/2" sec. by VR1.

2) At ASA 6400

a. Check

The needle in the finder should point "1/500" sec.

b. Adjustment

Adjustment is made as the needle should point "1/500" sec. by VR5.

3) Check and adjust it at ASA 100, 400 and 1600 too. Adjustment must be made by VR5.

3-4 Rechecking output

Recheck output as referring to step "3-2" equally.

Note: Adjustment can be normally finished so far as step "3-4".

When being undermentioned condition, perform step "3-5" primarily.

After completing the step "3-5", readjust from step "3-1" to "3-4".

1. As every parts are correct, Adjustment can not be made so far as step "3-4".

2. Replace SLT76331 CdS or SLT77111 Printed circuit plate to new one.

1) Connecting points of the digital multimeter terminals:

There are two kinds of SLT77111
Printed circuit plate.

It is possible to replace the
old printed circuit plate
into new one.

How to discriminate the old
plate and new one:

The printed circuit plate
which has cord number of
parts on its surface is the
old plate.

New one has not the cord
number on its surface, but
it has them its reverse
side.

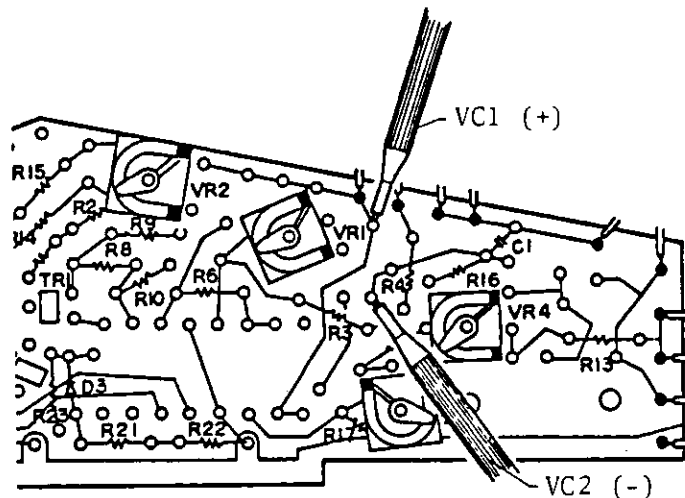


Fig.15

a. Old type P.C. plate

Temporarily solder about 5cm
length lead wire to each pin
Ⓐ and Ⓑ and the lead wire
from (+) pin Ⓐ is VC1 and
other is VC1 as shown in the
Fig. 15.

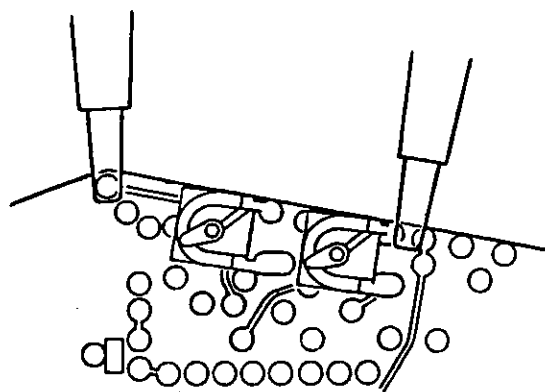


Fig.16

Connect the D.M. tester terminals to

Red (+)VC1

Black (-)VC2.

b. New type P.C. plate

Connect or clip the D.C. tester terminal with VC1 and VC2 on the P.C.
plate as shown in the Fig. 16.

2) Check voltage of CdS

- ° AE.P. finder main switch ON.
- ° Regulated D.C.P. Supply..... 6V

a. At EV 5

After covering the eyepiece by something for insulating external light, measure its V. CdS.

The voltage must be 10mv to 40mv.

If not, must change it to new one.

EV	D.C. tester terminal		CdS-voltage	Adj.
	Red (+)	Black (-)		
5	VC1	VC2	10mv ~ 40mv	
15			61 ~ 91	VR3
12			45.7 ~ 75.7	VR4
11			40.6 ~ 70.6	
9			30.4 ~ 60.4	
7			20.2 ~ 50.2	

3) At EV 15

a. Check

V. CdS should be 70.5mv to 82.5mv.

b. Adjustment

Adjustment is made by VR3.

4) Check and adjust it at EV12, 11, 9, and 7 too.

Adjustment must be made by VR4.

5) After finishing this step, the step 3-1 to 3-4 must be adjusted again.

General Specifications
for
CdS Prism Finder

Specifications

Viewfinder: Unreversed, laterally correct image; 0.74 x magnification with standard 80 mm lens at infinity; built-in hot shoe and equipped with an eyecup.

Metering System: Center-weight TTL full-aperture, zero-method via indicator needle.

Meter Coupling Range: (with f/1.9 lens and 100 ASA film)

EV2.85-17 (f/1.9, 1/2 sec. - f/11, 1/1000sec.)

(with f/2.8 lens and 100 ASA film)

EV4 - 18 (f/2.8, 1/2 sec. - f/16, 1/1000 sec.)

Shutter Speed Range: 1/1000 - 1 sec.

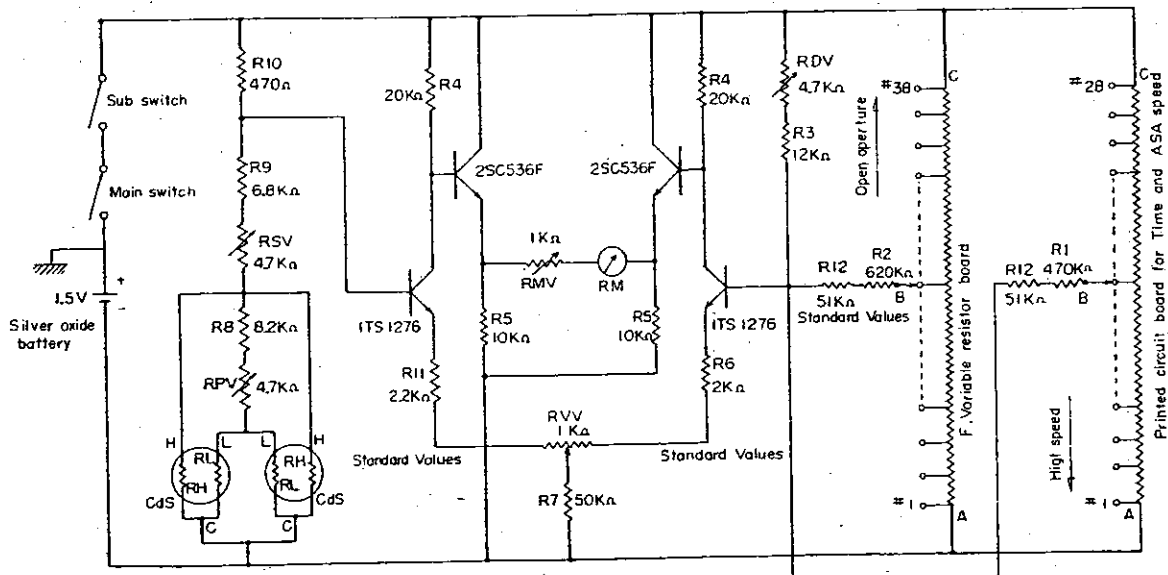
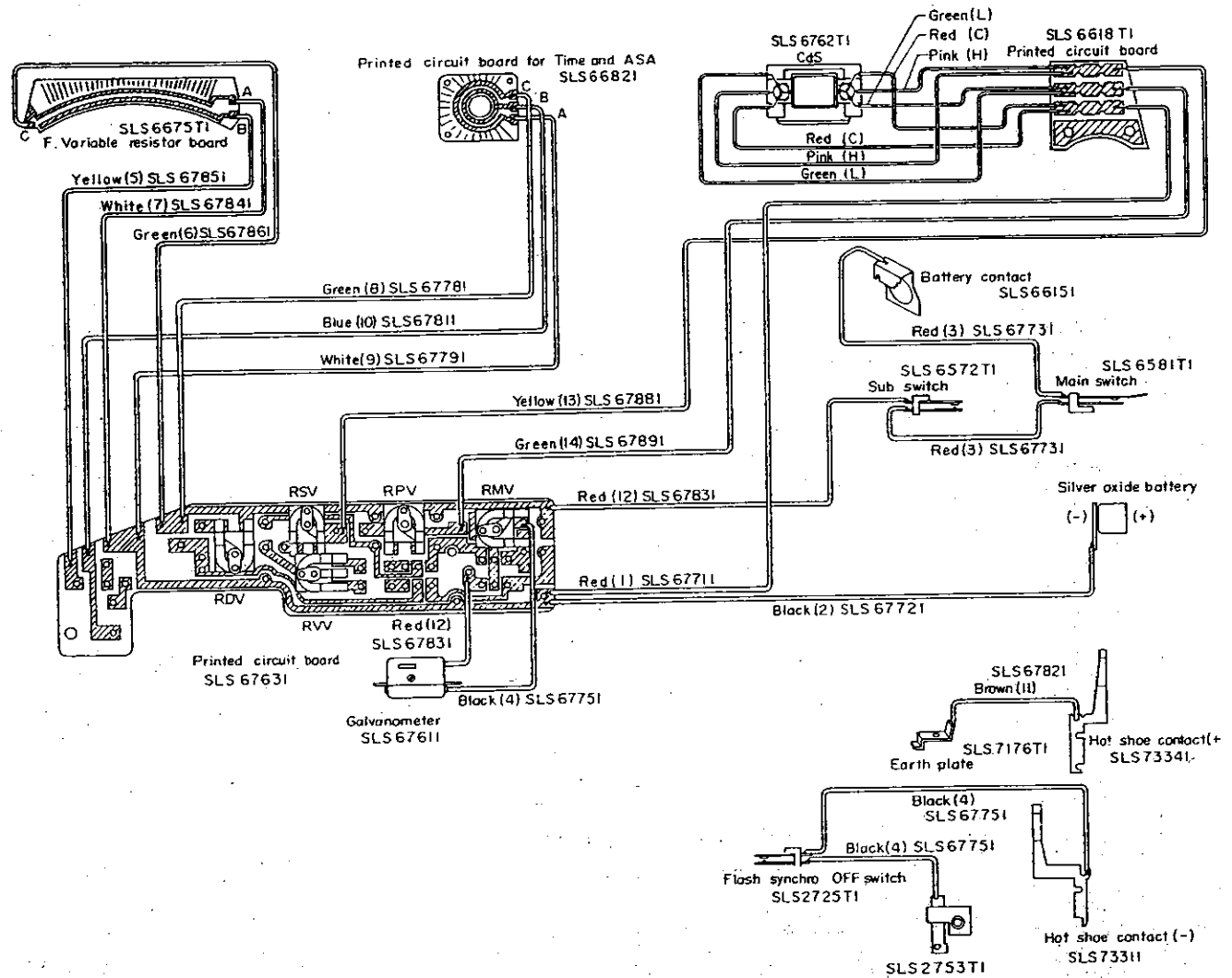
ASA Range : 25 - 6400

(Aperture coupling in the entire range)

Power Source: One 1.5 V silver oxide battery

Repair Manual
for
CdS Prism Finder

Electric Circuit Diagram for CdS Prism Finder



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1. Disassembly and reassembly of top cover

1-1 Dis-and reassembly

A. Dis assembly

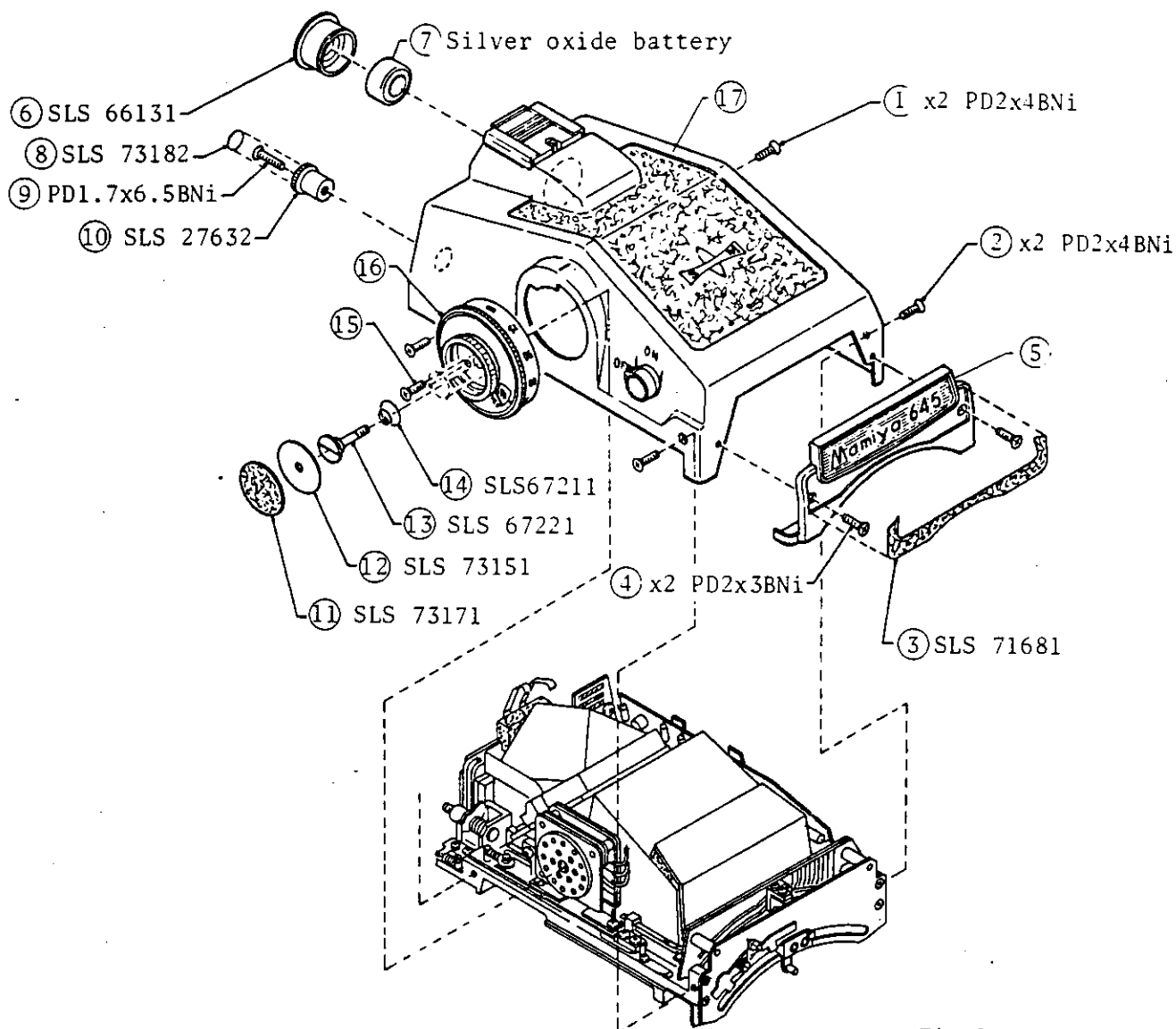


Fig.1

The arabic numeral in a circle as shown in the Fig. 1 indicates the procedure of disassembly.

- a. Set the shutter speed dial to 1/8 sec. and ASA dial to ASA 400 before removing them.

B. Reassembly

Reassembly is normally the reverse of disassembly.

- a. When turning shutter speed dial clockwise and counter clockwise at ASA 100, the dial must stop at 1/1000 sec. and 1/2sec.

2. Trouble Shooting

2-1 General check

Exposure meter does not work

Battery 1.5V

Dirty insid of battery
chamber.
Weakened contact

Dirty contacts of SLS6581T1
Main switch.
Not enough its contact
efficiency.

Dirty contacts of SLS65721T1
Sub. switch.

Mal-solder, short and broken
lead wires

Mal-solder, broken lead wire
of RDV, RSV and RVV Variable
resistors.

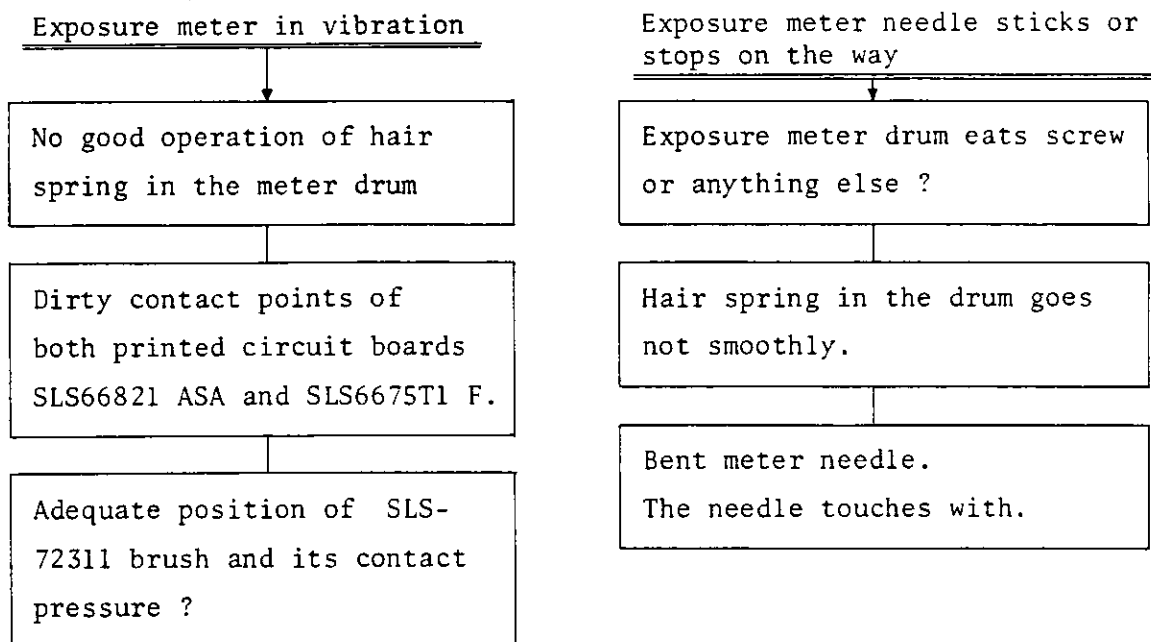
Exposure meter dull sensitivity

Mal-solder or broken lead wires,
Green (L), (14) and (8).

Short between lead wire (9) and
(10), (7) and (5).

Mal-solder or broken RPV Variable
resister.

Mal-solder or broken-resistors on
reverse side of SLS67631 printed
circuit plate.



※ Fig. 2

Note: Right position of SLS72311 Brush:

All contact points on the F printed circuit plate are divided into inter vales of 0.2 EV equally as shown in the Fig. 2 .

For example, when the brush goes from contact point with short tail to nex contact point with short tail, one EV should be made.

With 80mm F2.8 lens, when turning aperture ring, the brush must stop on the contact with short tail at each F. mumber.

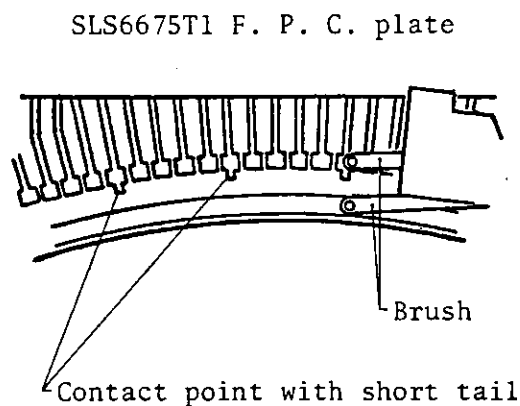


Fig. 2

Flash goes at hot shoe
without shutter release

SLS2725 X. OFF switch
contacts touch to body?
Short of lead wire to the
contacts?

SLS73311 Hot shoe contact
touches to SLS2778T1 base
plate?

Short of SLS2753T1 X. synchro
terminal because of chips of
solder or any other metals
around it ?

Flash does not go at hot
shoe, when releasing shutter

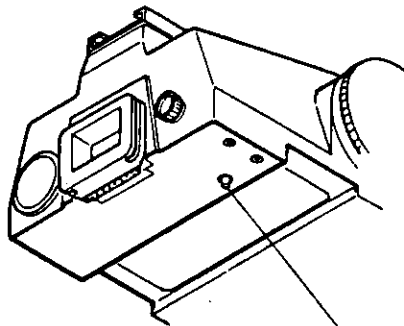
Dirty X-synchro terminal ?
Its contact pressure ?
Broken lead wire ?

Dirty SLS73311 Hot shoe contact
and SLS73341 Hot shoe earth
contact and their not enough
contact pressure.
Broken lead wire or mal-solder

Dirty SLS2725 X. OFF switch
contacts and its broken lead wire
or mal-solder

Dirty hot shoe and its fixing
is loose.

Fig.3

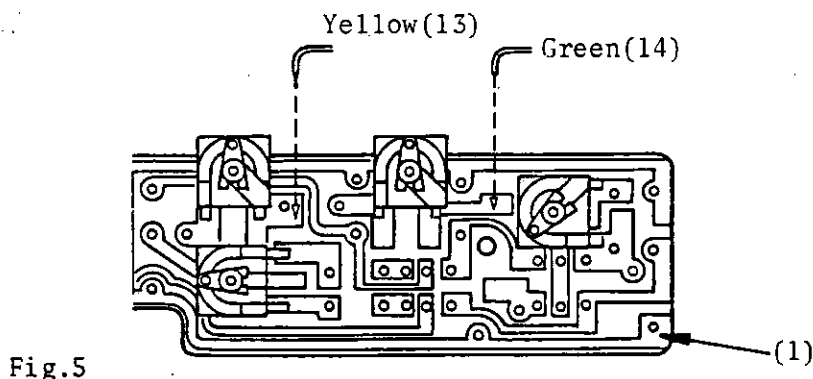
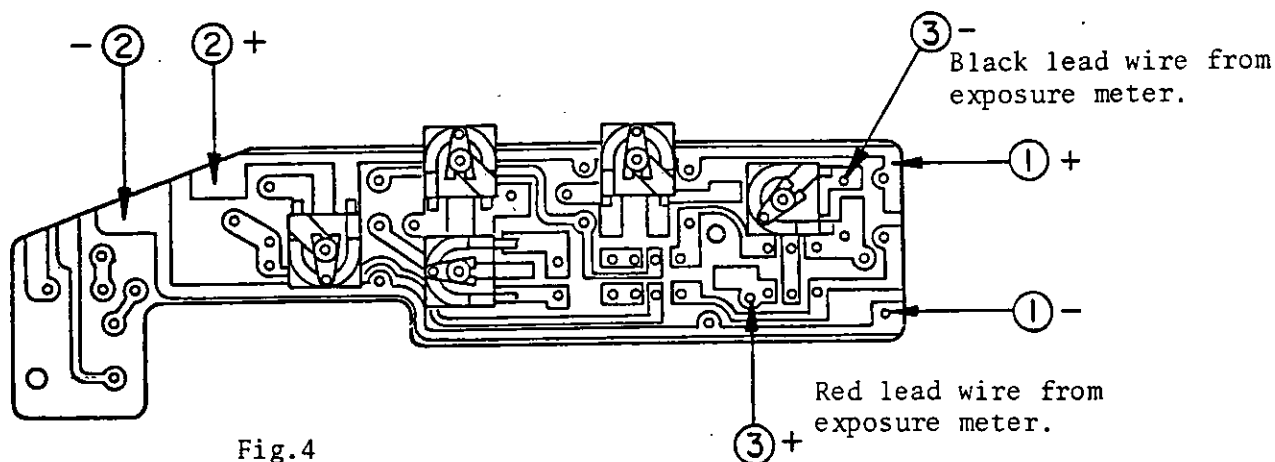


X. Synchro terminal

2-2 Checking by tester

Check point	Batt-ery	Main SW	Tester Range	Tester terminal		Remarks
				Red(+)	Black (-)	
Input to SLS6731 P.c. plate.(1.5V)	With	ON	DCV 2.5	See Fig. 4 - ①		Tester indicator Should point 1.5V.
Circuit of the P.c. plate.(1.5V)	With	ON	DCV 2.5	See Fig. 4 - ②		Ditto
Operation of exposure meter	NO	X	R1	See Fig. 4- ③		Exposure meter needle must move fully.
CdS unit	NO	X	R1	Lead wire (14)	Lead wire (13)	Short must not be. * See Fig. 5
				Lead wire (14)	Lead wire (1)	
				Lead wire (13)	Lead wire (1)	

* After unsoldering yellow lead wire(13) and green lead wire (14) from SLS67631 P.c. plate, check it as shown in the Fig.5.



3. Check and adjustment of exposure meter

3-1 Set the finder to the dummy body

- 1) Remove top cover and attach working top cover temporarily as shown in the Fig. 6. Install shutter dial temporarily.
- 2) Insert the battery and switch on its dial.
- 3) Set it to the dummy body.

Note: The SLS-7 Dummy body is common use with AE-prismfinder and PD-prismfinder.

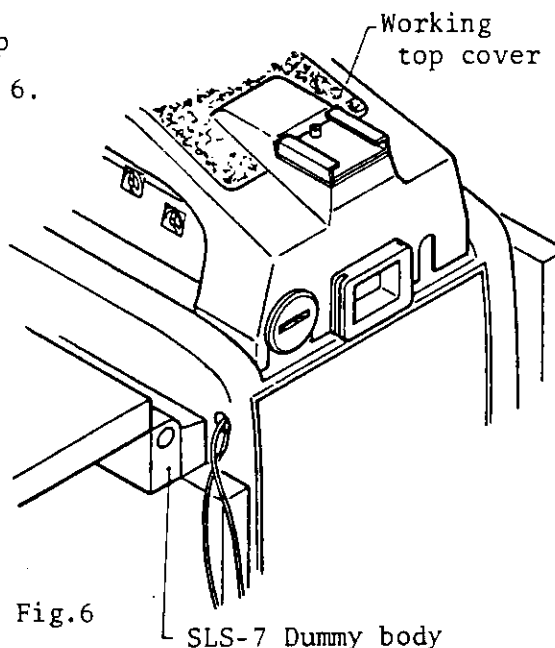


Fig.6

SLS-7 Dummy body

3-2 Check and adjustment exposure value

A. At EV11

1) Check

The meter needle should be in center or within ± 1 setp from zero point.

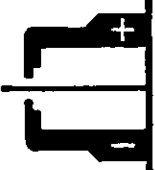
EV	ASA	F.NO	Shutter speed	Meter needle	Adjustment
11	100	8	1/30		RVV
15			1/500		RVV and RDV
7			1/2		

Fig.7

2) Adjustment

Adjustment is made by RVV variable resistor.

B. At EV15 and EV7

1) Check

Check the finder at EV15 and EV7 as referring to Fig. 7. The meter needle should be in center or within ± 1 step.

2) Adjustment

- a. Primarily adjust it by the RVV variable resistor.
- b. Next do it by RDV variable resistor.
- c. Adjust it again by repeating above step a and b.

C. Check and adjust it at EV11, 15 and 7 again.

3-3 Check and adjustment of one step change of exposure meter needle

A. Check

1) By turning shutter speed dial:

Turn the shutter speed dial 1/30 sec. to 1/125 sec. and 1/30 sec. to 1/8 sec. one step by one step.

2) By turning aperture ring:

With EV11, ASA 100 and shutter speed 1/30 sec. turn aperture ring aperture 8 to 4 and 8 to 16 one step by one step.

In above steps 1) and 2), the meter needle should change in one step (one EV) or must change within 0.5 EV to 1.5 EV limit.

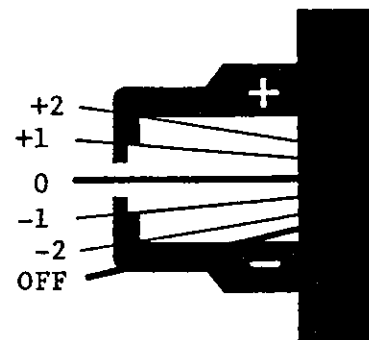


Fig. 8

B. Adjustment

When the meter needle moving is out of the limit or not equal to plus side and minus side, adjust it by RMV variable resistor.

Note: When the adjusting is impossible by the RMV variable resistor, it can be possible to adjust by changing R-6 resistor.

Limit of resistor Ω :

R61.2K Ω to 3K Ω

R112.2K Ω .

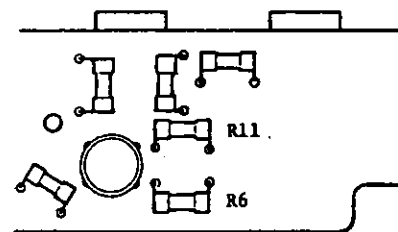


Fig. 9

Five different resistors for R-6 which are 1.2K Ω , 1.6K Ω , 2.2K Ω , 2.7K Ω and 3.5K Ω are provided for repair.

For example:

When changing R6 resistor 2.2 K Ω to 1.6K Ω , adjusting range by the RMV will widen 2 EV more.

When decreasing the resistor value, the meter needle will move to minus side more.

When adjusting it by the RMV, it must be necessary to check and adjust it again from the step 1-2.

3-4 Both resistors RSV . RPV

Both PSV and RPV variable resistors are for CdS.

As the two resistors have been already adjusted in the factory, please do not touch them, as well as spare parts SLS67631 P.c. plate which are supplied from us.

When changing CdS-unit only or SLS67631 P.c. plate, adjustment can be possible with the two other resistors RVV and RDV.

REPAIR MANUAL

FOR
P.D. Prism Finder

The confirmation before the Adjustment
or Repair of the troubled P.D Prism Finder

A) Camera Body

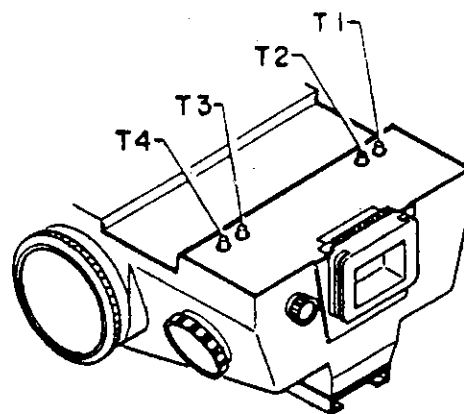
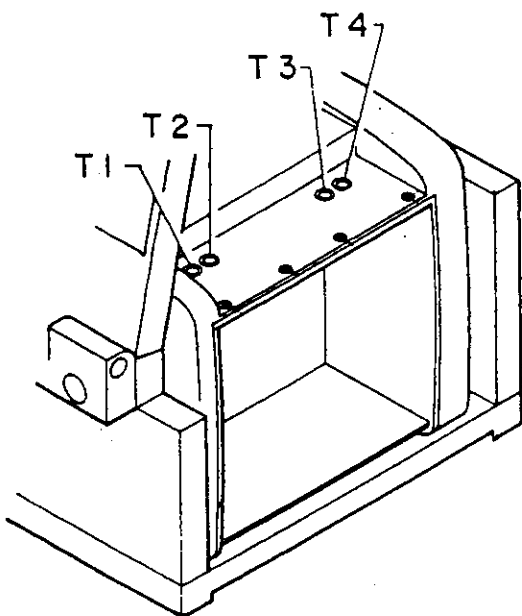
1. Set the Shutter speed dial at mark \odot , check the voltage between T2 (red clip) and T4 (black clip) by the Digital multitester. If under 6 volts, Camera or Battery is defective.
2. Is each Shutter speed correct, 8s through 1/500 or 1/1000 ?
3. Clean the dusts or corrosions if any on the contacts T1, T2, T3, and T4.

B) P.D Finder

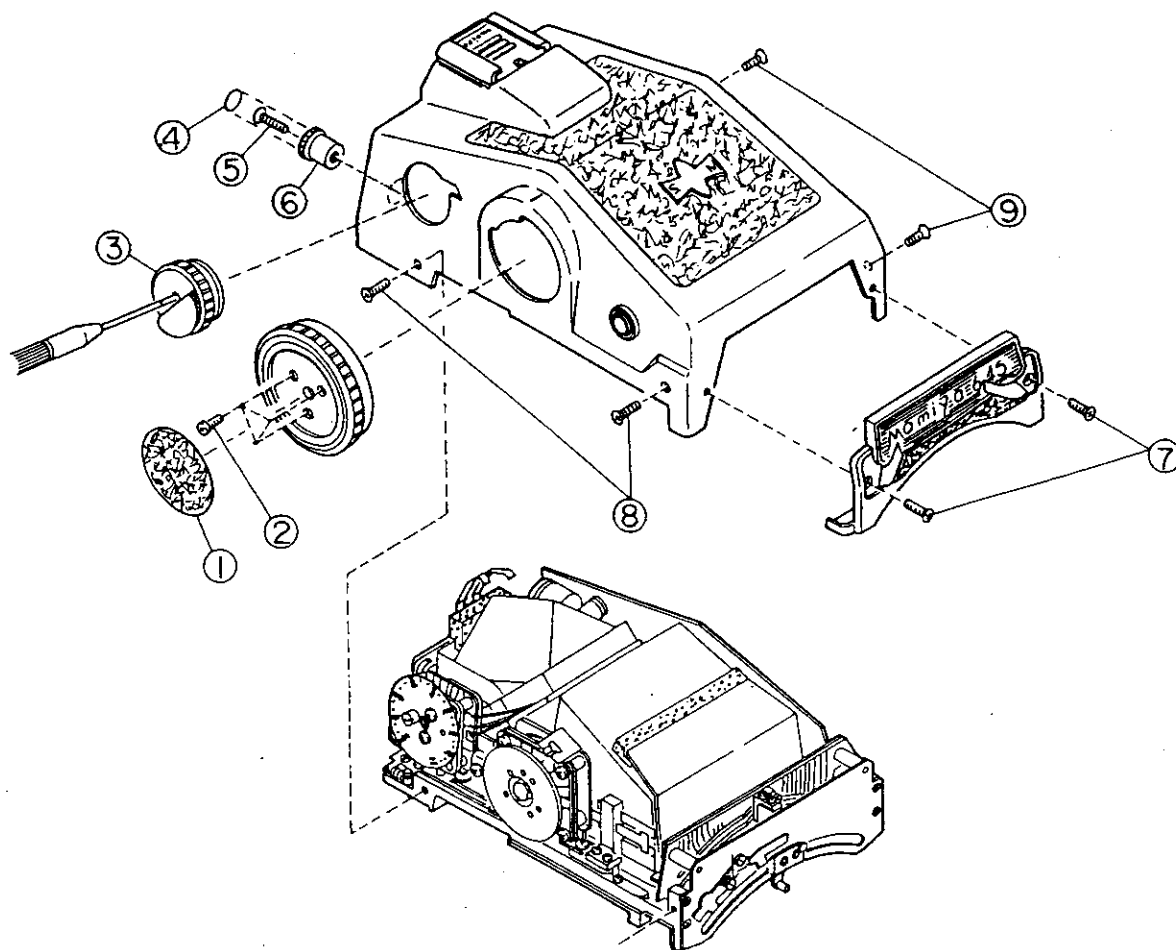
1. Clean the dusts or corrosions if any on the contacts T1, T2, T3, and T4.

C) Attachment

1. Is the P.D Finder fitted on the body ?
2. Is the Aperture ring coupling pin of the P.D Finder seated in the meter coupler of the lens ?
Does it move smoothly ?
3. Is A.M changing lever of the Lens at A. surely ?



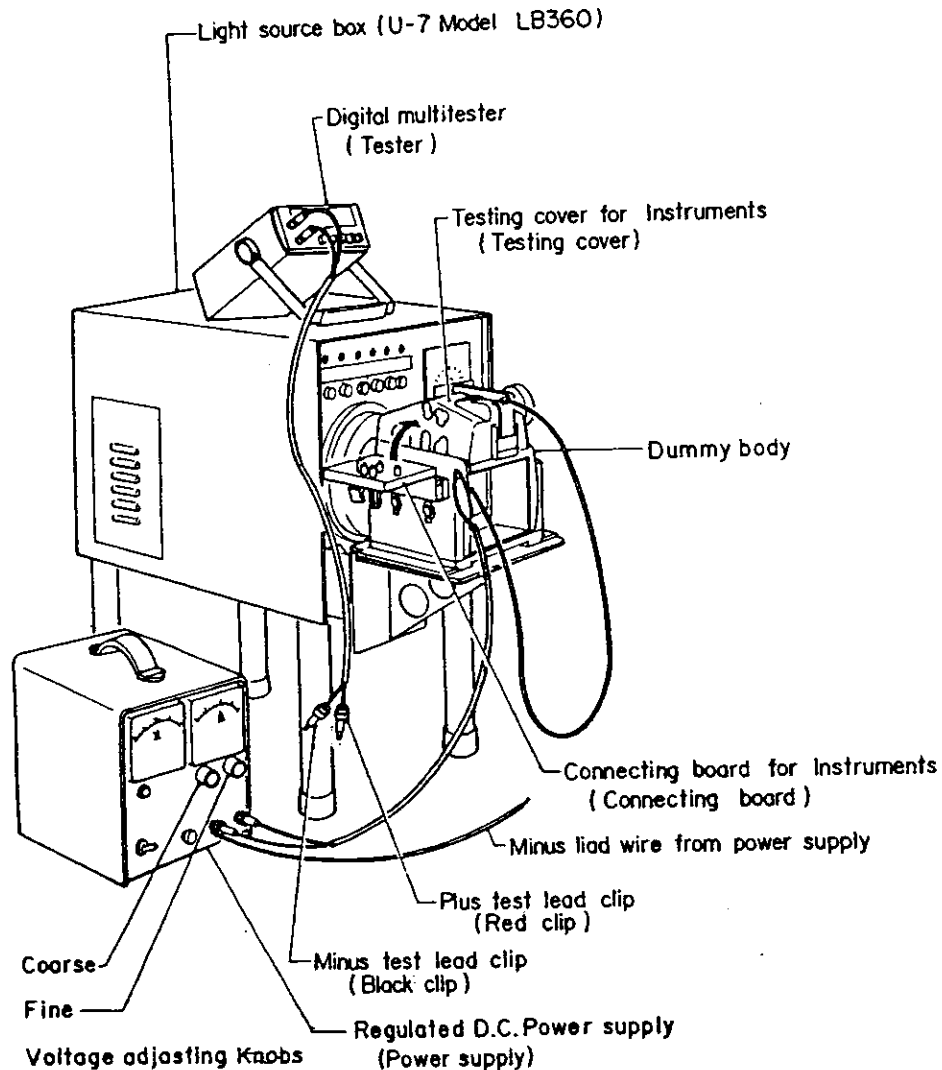
Removing and assembling of the Top cover (SLS71161)



- (1) Removing of the Top cover (SLS71161) the Arabic numeral in a circle indicates the procedure.
- (2) Attach Top cover in the reverse order.

Adjustment Procedure of P.D Prism Finder

Room temperature should be 20° to 25°C (68° to 77°F)



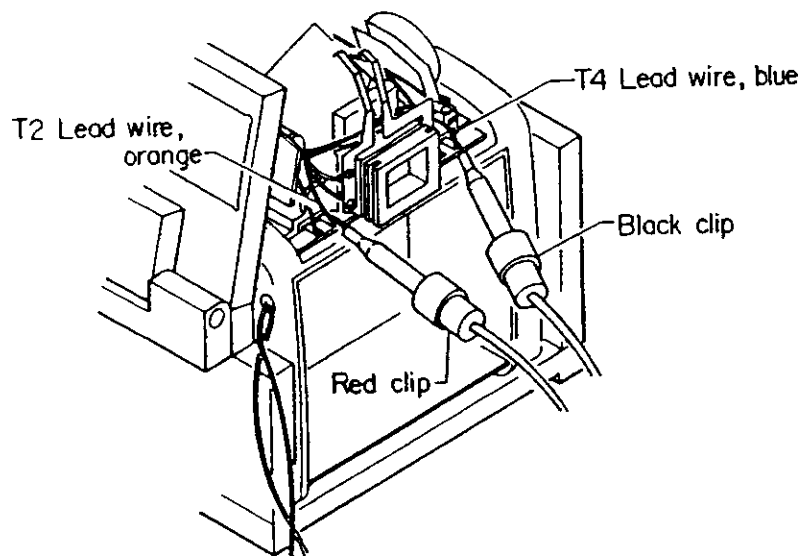
1. Setting the Measuring Instruments

- 1-1 Put on the power switches of the Light source box, Regulated D.C. Power supply and Digital multimeter. Push D.C. V button on the Digital multimeter.

NOTE: Keep the Clips free when the Switch of Digital multimeter put on.

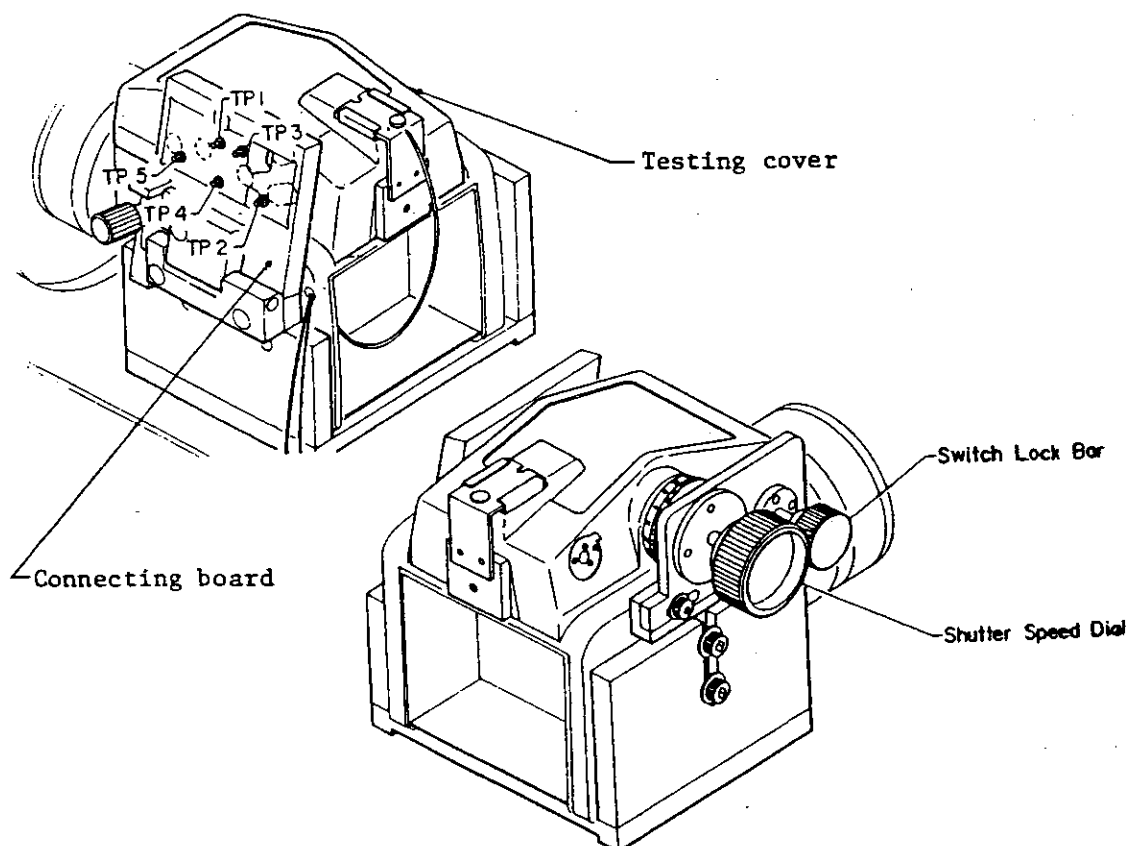
- 1-2 Detach the Top cover of the P.D Prism Finder and set it to the dummy body.

- 1-3 Connect the red clip to the contact T2 and the black clip to the contact T4, then adjust the voltage adjusting knob of the Power supply so that the reading of the Tester shows 5.99 to 6.01 volts.



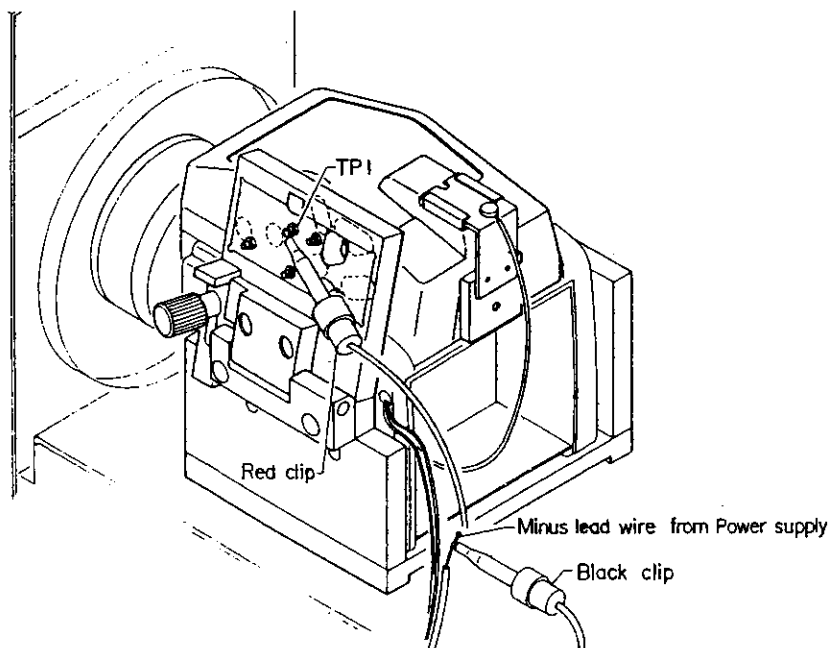
- 1-4 Set the Testing cover to the P.D Finder and turn the connecting board beside them.

- 1-5 Push the Switch lock bar and fasten the Shutter speed dial to the shutter speed disk.



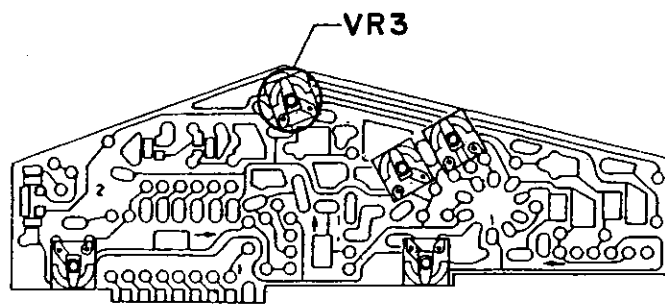
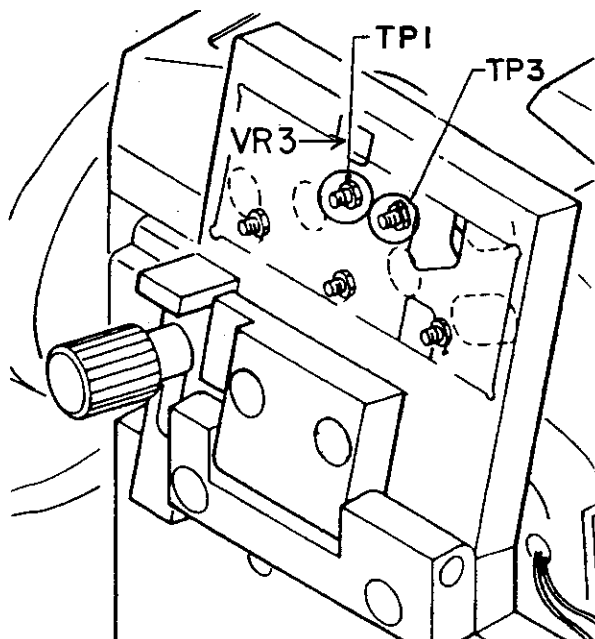
2. Adjustment procedure

- 2-1 Connect the red clip to the TP1, and the black clip to the minus lead wire from Power supply, then confirm the reading of the Tester shows 1.23 to 1.45 volts.



(If not, refer to the Trouble shooting No.1)

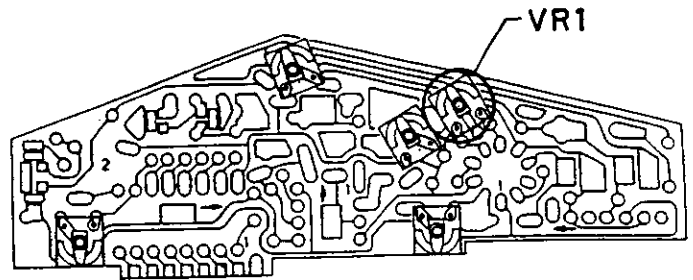
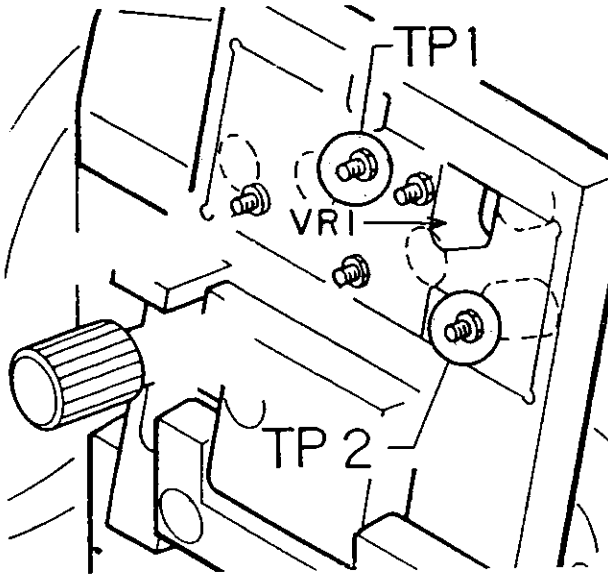
- 2-2 Connect the red clip to TP3 and black clip to TP1, Adjust the Variable resistor VR3 with the Adjusting driver (SLS-20) in order that the reading of the Tester shows -0.233 to -0.235 volts for 1/1000 P.D FinderS or -1.098 to -1.102 volts for 1/500 P.D Finder.



(If not, refer to the Trouble shooting No.2)

2-3 Set the Light source box to at LV 11.

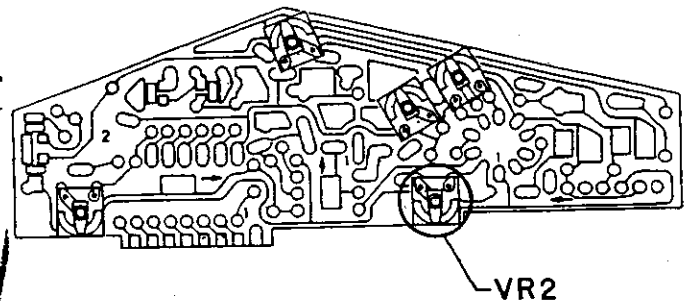
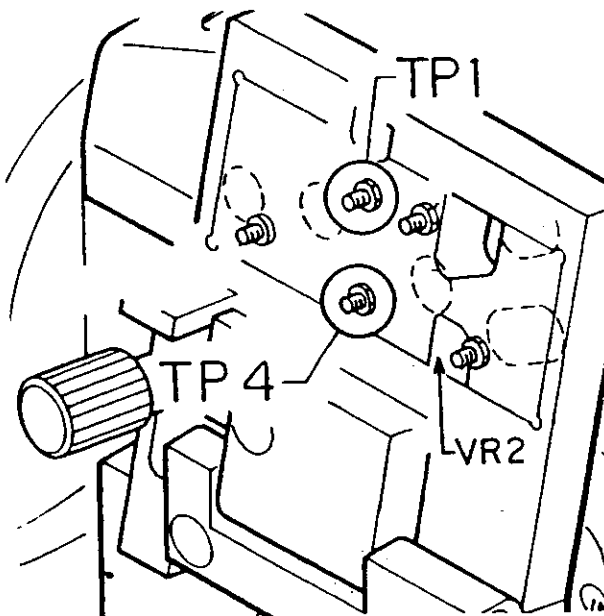
Connect the red clip to TP2, the black clip to TP1, then adjust VR1 so that the reading shows -0.360 to -0.364 volts.



(If not, refer to the Trouble shooting No.3).

2-4 Connect the red clip to TP4 and the black clip to TP1.

Adjust VR2 so that the difference of the readings at LV5 and LV11 is 0.107 to 0.109 volts.



NOTE: When you adjust VR2, both readings change, so repeat this procedure.

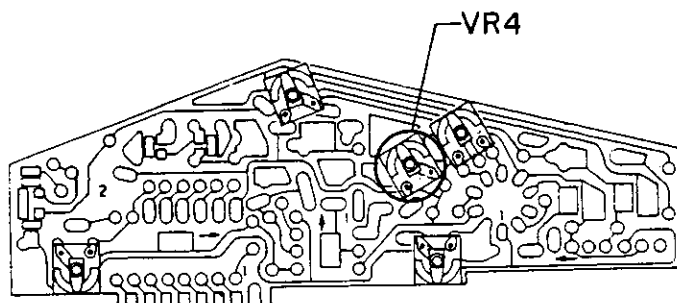
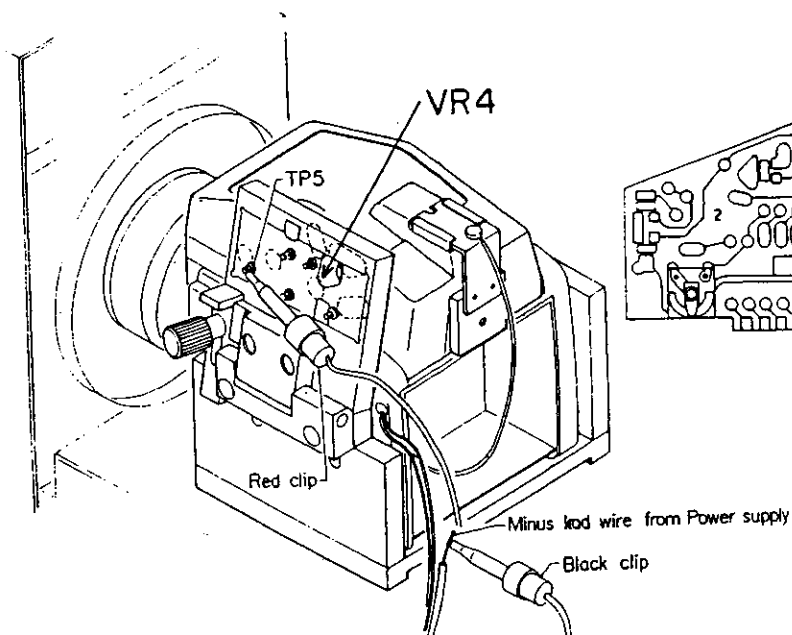
(If not, refer to the Trouble shooting No.4).

2-5 Connect the red clip to TP5 and the black clip to the minus lead wire from the Power supply.

Set to the following values

LV	11
Shutter speed	1/30
ASA speed	100
Lens aperture	f 8

Adjust the VR4 so that the reading shows 2.98 to 3.02 volts.

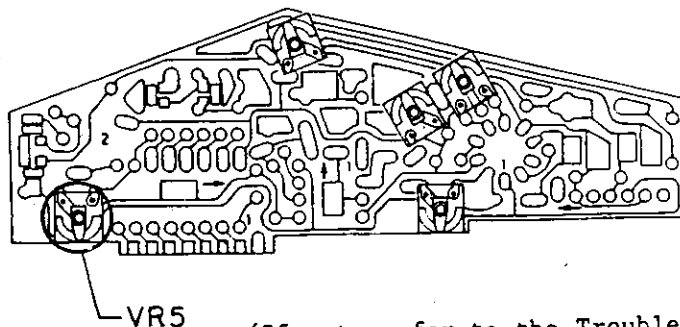


(If not, refer to the Trouble shooting No.5)

2-6 Taking the eyepiece cap off and check the lighting of the LED at the following combinations

L V	Shutter speed	A S A
5	2 s	100
7	1/2	100
11	1/30	100
15	1/500	100

Adjust the VR5 so that only the green LED lights at f8 setting and under or over red LED should lights at f8 +0.5 step or f8 -0.5 step respectively.



(If not, refer to the Trouble shooting No.7)

2-7 Confirm the change of the LED lighting according to the any change from the standard Setting, LV11, ASA100, Lens aperture f8, Shutter speed 1/30.

(If not, refer to the Trouble shooting No.6).

It is permissible the two LEDs come at a time, if the one is brighter than the other.

2-8 Release the Switch lock bar and put off the main switch.

Confirm that the LED Light goes out within 11 to 19 seconds after that.

(If not, refer to the Trouble shooting No.8).

2-9 Unfasten the Speed dial link cover and remove the Connecting board and Testing cover, detach the P.D Finder from dummy body.

Put off the Power switch of the Power supply and the Tester.

2-10 Take off the dummy body from the unit and check the working of the fixed set.

TROUBLE SHOOTING

NOTE:

When you measure the voltage between the Printed circuit board lands and check the disconnection or short circuit of the lead wire, use the Digital multitestor.

When you replace the Printed circuit board, you should repeat Adjustment procedure 2-1 through 2-10.

No.1

Measure the voltage of the Printed circuit board land between (8) and (12)----- 6 volts

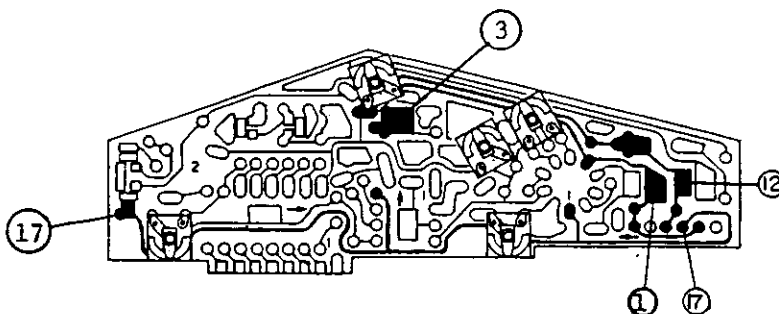
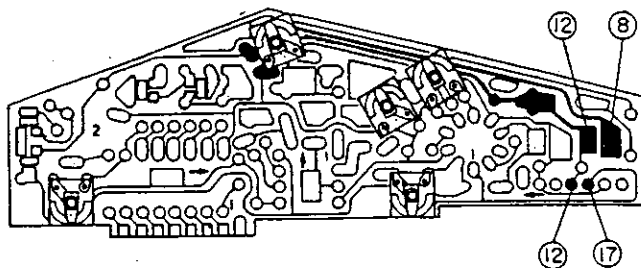
→ Disconnection or Imperfect soldering of the Battery lead wires(SLS73711, SLS73721)

Measure the voltage of the Printed circuit board land between (17) and (12)----about 6 volts

→ Disconnection or Imperfect soldering of the Main switch lead wires(SLS73731, SLS73741)

Short circuit of the Printed circuit board between (1) or (3) and (17), (3) and (12)

If repairing is impossible, replace Printed circuit board.



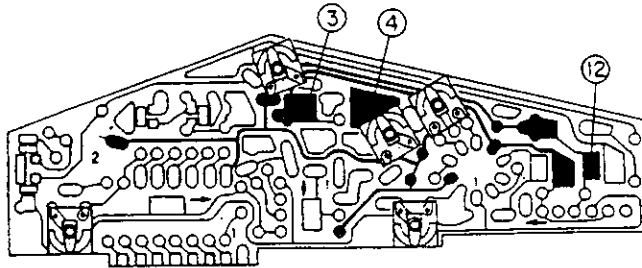
No.2

Disconnection or Imperfect soldering.

- * Lead wire A and C (SLS73871, SLS73891) of Shutter speed resistor assy. (SLT72501 or SLS72501)
- * Lead wire A and C (SLS73911, SLS73931) of Film speed resistor assy. (SLT72801 or SLS72801)
- * Lead wire A and C (SLS73841, SLS73861) of Aperture coupling assy. (SLT71901 or SLS71901)

Short circuit of Printed circuit board land between
③ and ④ , ④ and ⑫ .

If repairing is impossible, replace Printed circuit bard.



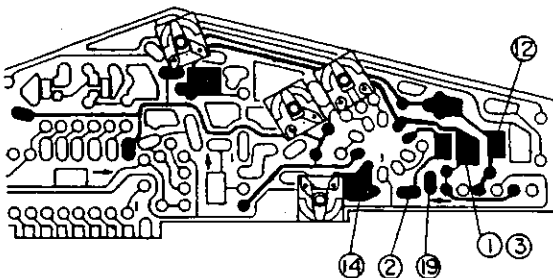
No.3

Disconnection or Imperfect soldering of the Silicon photo diode (SLS7247T1) Lead wire (SLS73811, SLS73791, SLS73821 and SLS20781).

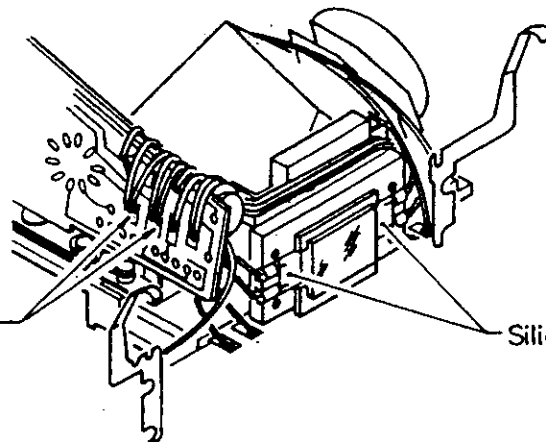
Broken Silicon photo diode (SLS7247T1).

Short circuit of the Printed circuit board land between
③ and ⑫ , ② and ⑲ , ⑫ and ⑭ .
① and ③

If repairing is impossible, replace Printed circuit board.



Disconnection or
Imperfect soldering



Silicon photo diode
(SLS 7247T1)

No. 4

2-3 Confirm the adjustment procedure.

When you adjust the Light source box LV11 about -0.362 volts. It changes 0.018 volts per 1 EV so that you change LV5 reading becomes about -0.254 volts.

If repairing impossible, replace Printed circuit board.

No. 5

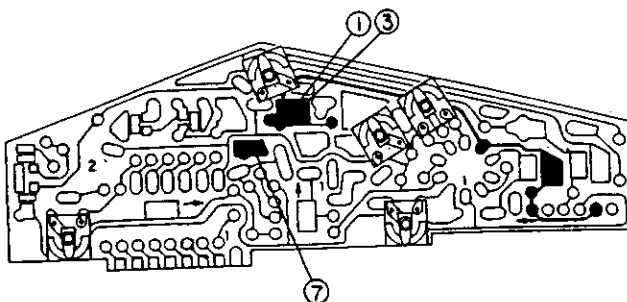
Shutter speed resistor assy.(SLT72501 or SLS72501).

Disconnection of the shutter speed brush.

Broken shutter speed Printed circuit board.

Disconnection or Imperfect soldering of the shutter speed Printed circuit board Lead wire B (SLS73881)

Confirm that the voltage of the Printed circuit board land between ① or ③ and ⑦ is 0.144 volts at 1/30 and is changes about 0.018 volts per 1 EV.(TV) When you move the shutter speed dial.



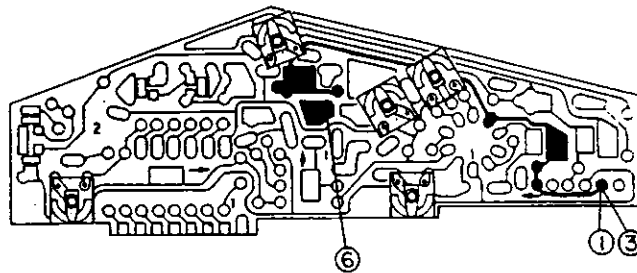
Film speed resistor assy.(SLS72801).

Disconnection of the Film speed brush.

Broken Film speed Printed circuit board(SLS72861).

Disconnection or Imperfect soldering of the Film speed Printed circuit board at Lead wire B (SLS73921)

When you set the film speed ASA100, confirm that the voltage of the Printed circuit board land between ① and ⑥ is about 0.108 volts it changes about 0.018 volts per 1 EV.(SV)



Aperture coupling assy. (SLT71901 or SLS71901).

Disconnection of the Aperture coupling bruh.

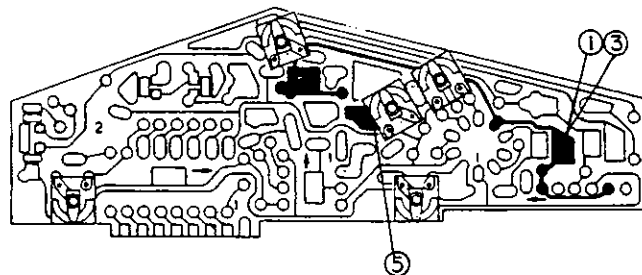
Broken Aperture printed circuit board.

Disconnection or Imperfect soldering of the Film speed printed circuit board Lead wire B (SLS73851).

→ When you set the Lens Aperture f 8,
confirm that the voltage of the Printed circuit
board land between (1) and (5) is about 0.072 volts
it changes about 0.018 volts per 1 EV.

* It is not the same rate near f 2.8.

If repairing is impossible, replace Printed circuit board.



No. 6

2- 5 Confirm the change of voltage as adjustment
procedure.

→ When you change the Shutter speed dial,
it changes about 0.3 volts per 1 EV.

When you change the Film speed dial,
it changes about 0.3 volts per 1 EV.

When you change the Aperture ring
it changes about 0.3 volts per 1 EV.

If repairing is impossible, replace Printed
circuit board.

No.7

Improper LED.

Each LED doesn't illuminate.
One of them doesn't
Only the green doesn't

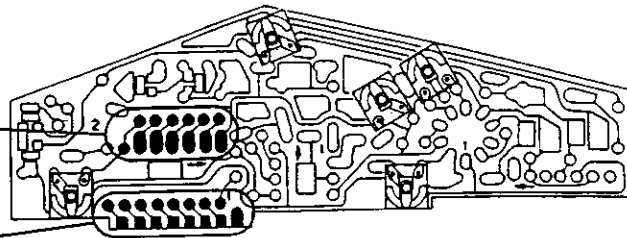
Short circuit or Imperfect soldering of
the Printed circuit board LED and IC4.

Defective LED.

If repairing is impossible, replace Printed
circuit board.

Land for IC4.

Land for LED.



No.8

When you push the main switch, confirm
that the both contacts points contacts
perfectly.

When you push the main switch and
release it, confirm the LED illuminates
11 to 19 seconds.

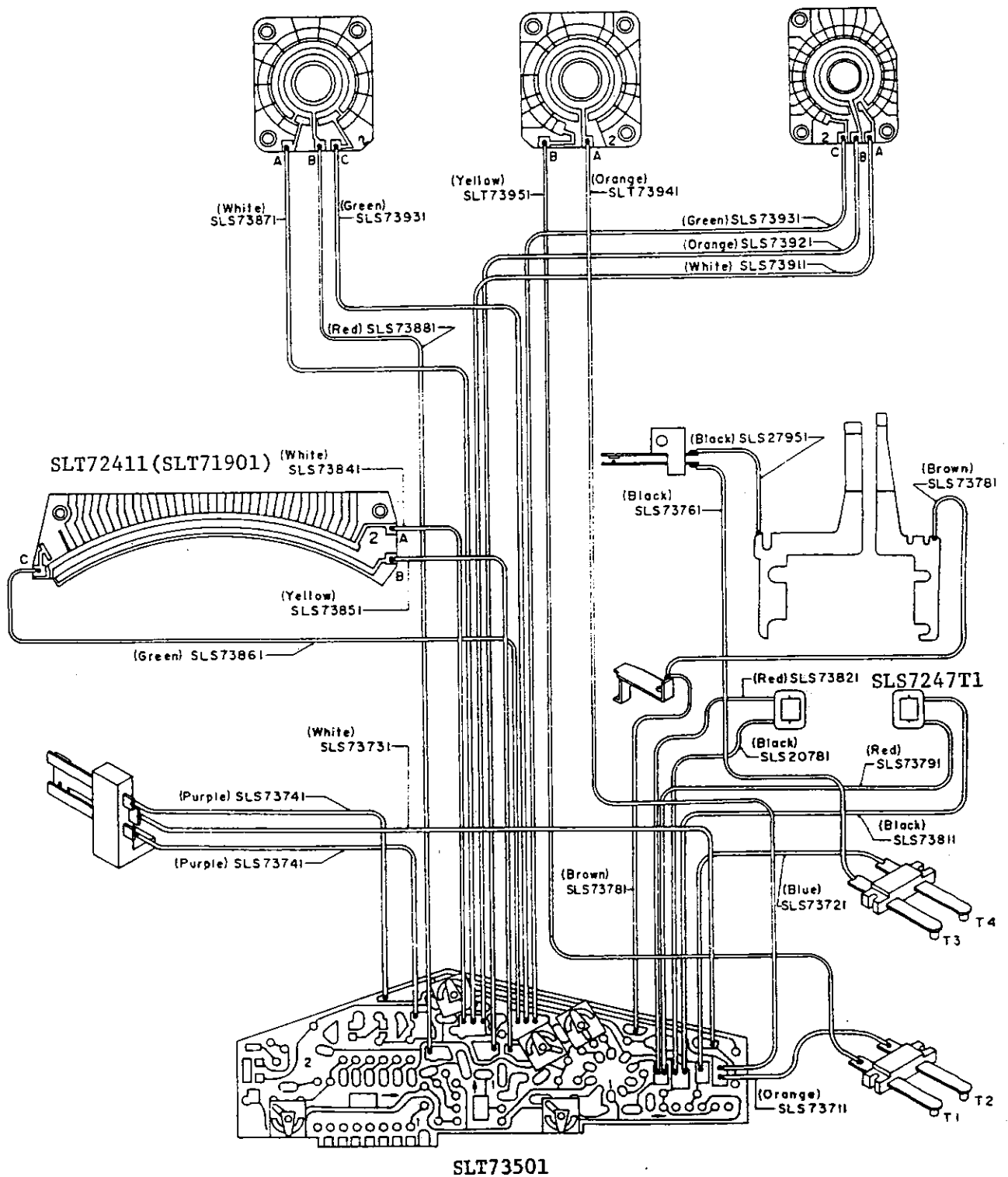
Short circuit of the main switch Printed
circuit board land between A and B.

If repairing is impossible, replace Printed
circuit board.

Electric Circuit Diagram

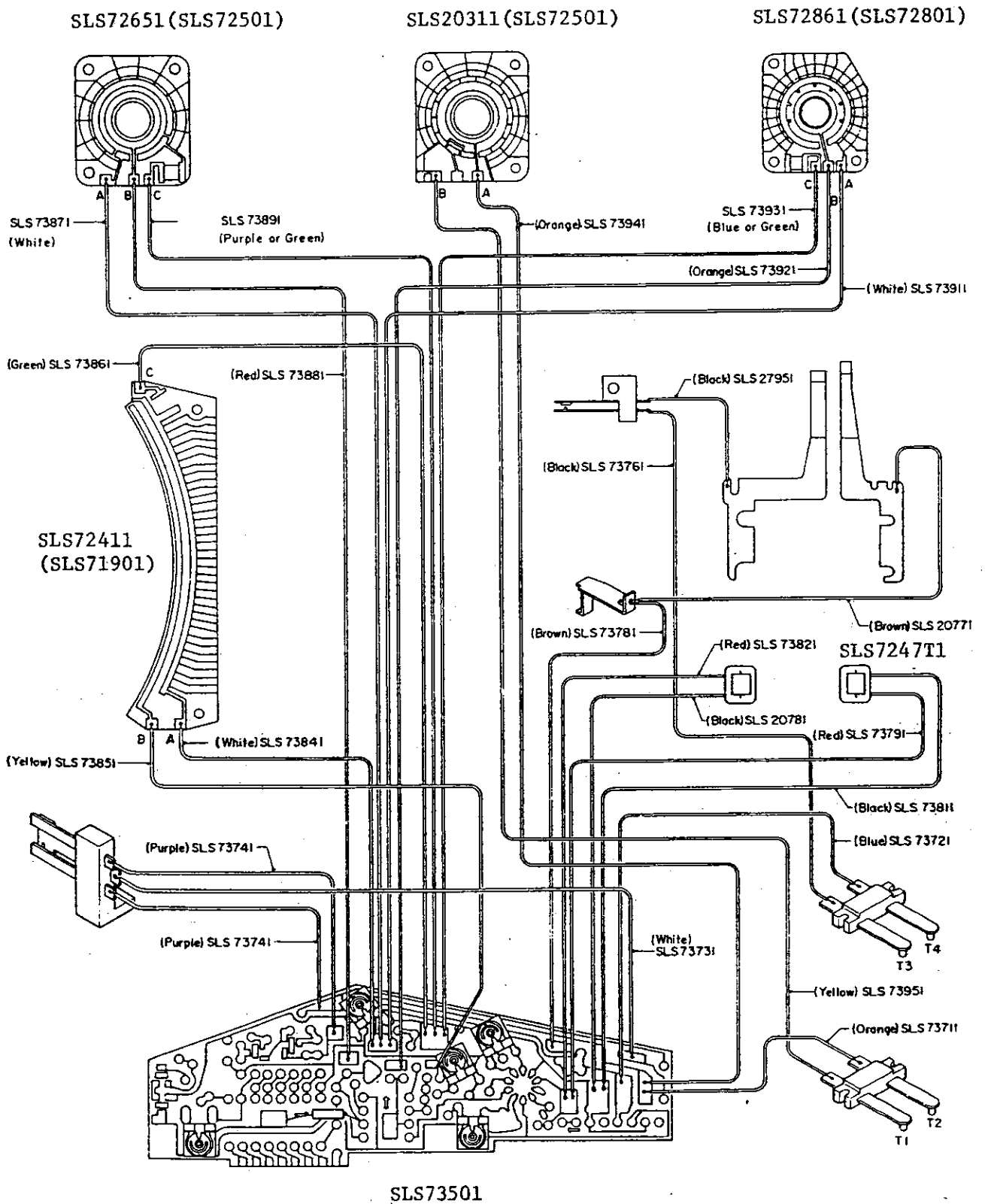
for PD Prism Finder S 1/1000

SLT72651 (SLT72501) SLT72711 (SLT72501) SLT72861 (SLT72801)



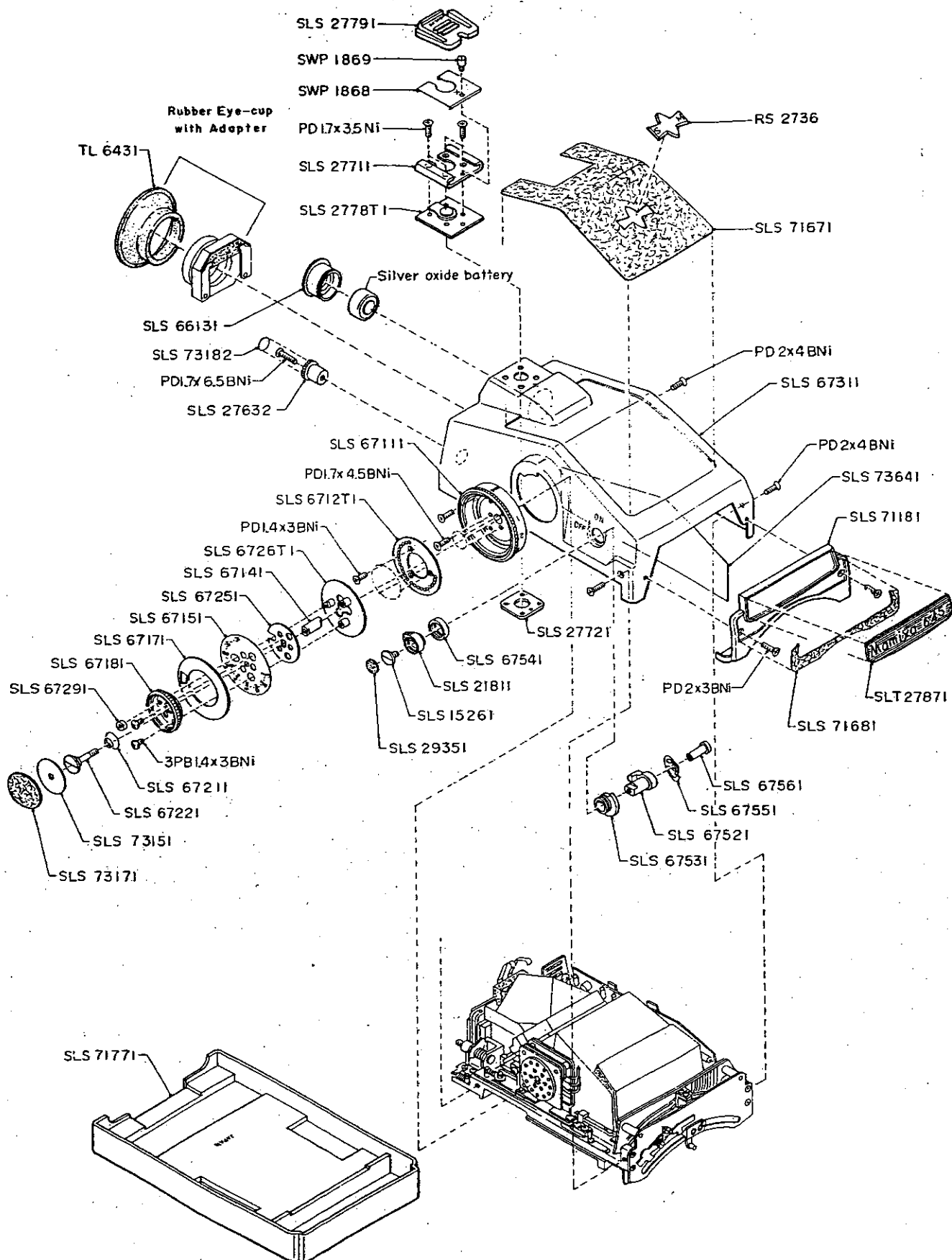
Electric Circuit Diagram

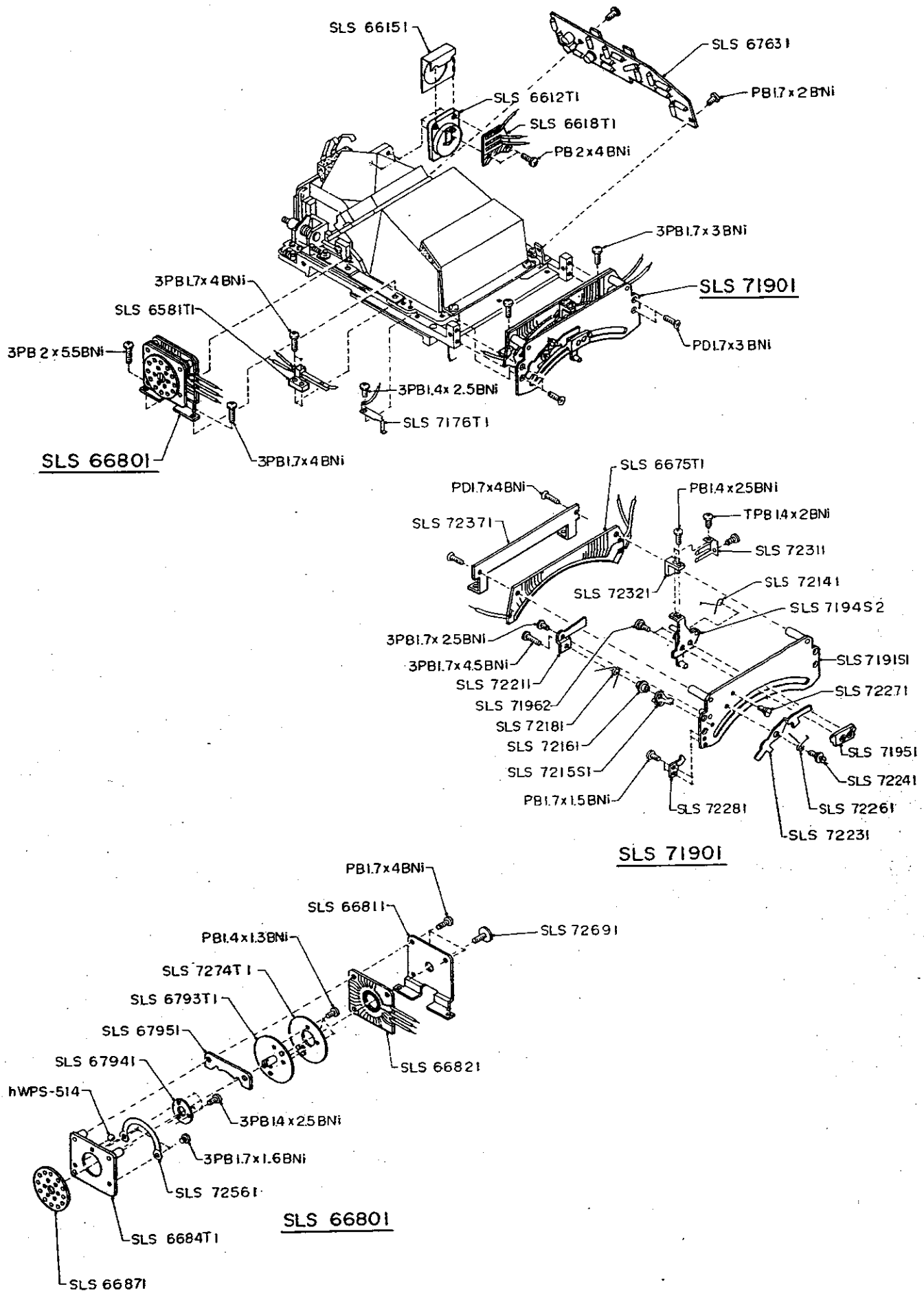
for PD Prism Finder 1/500

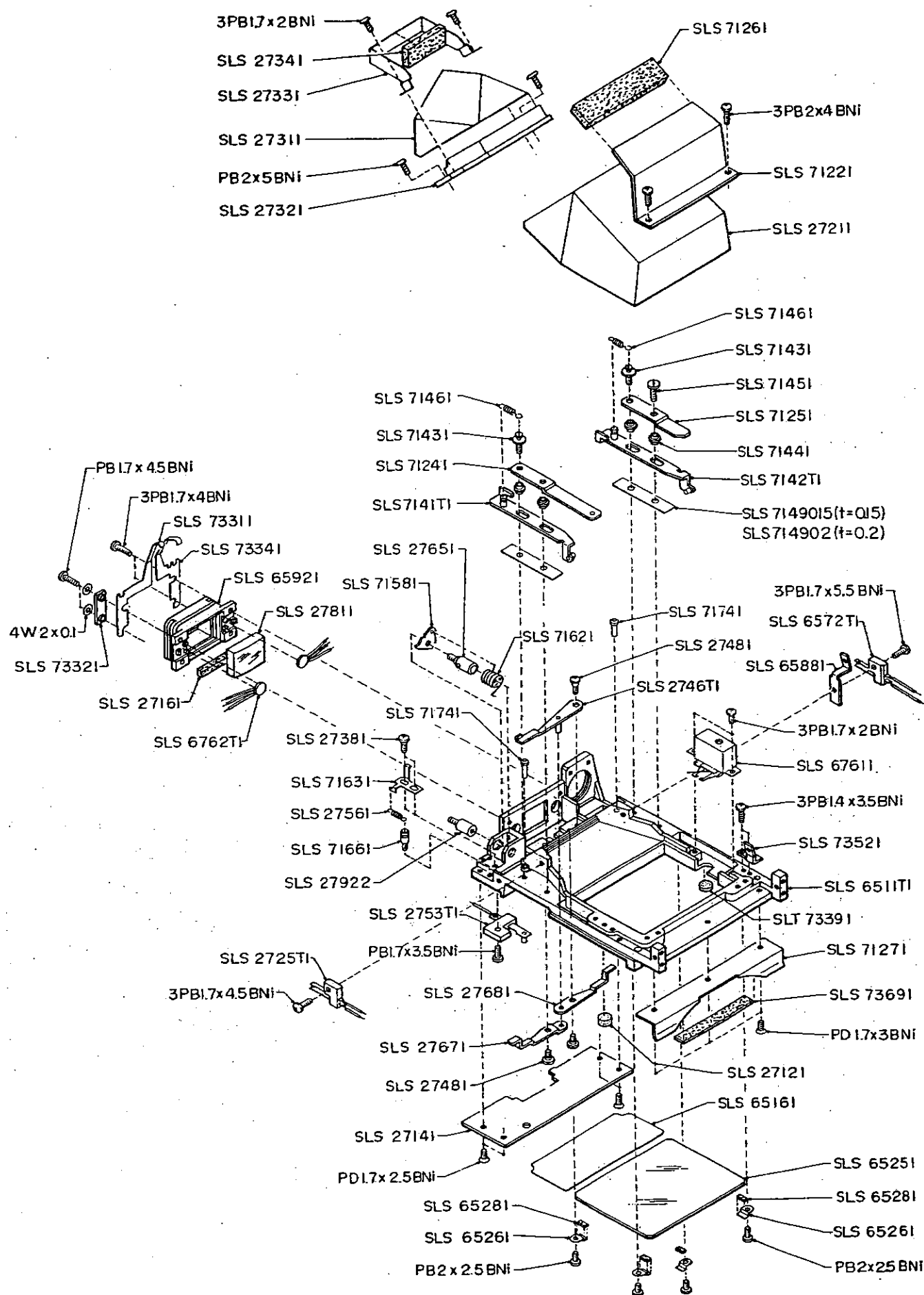


EXPLODED VIEWS

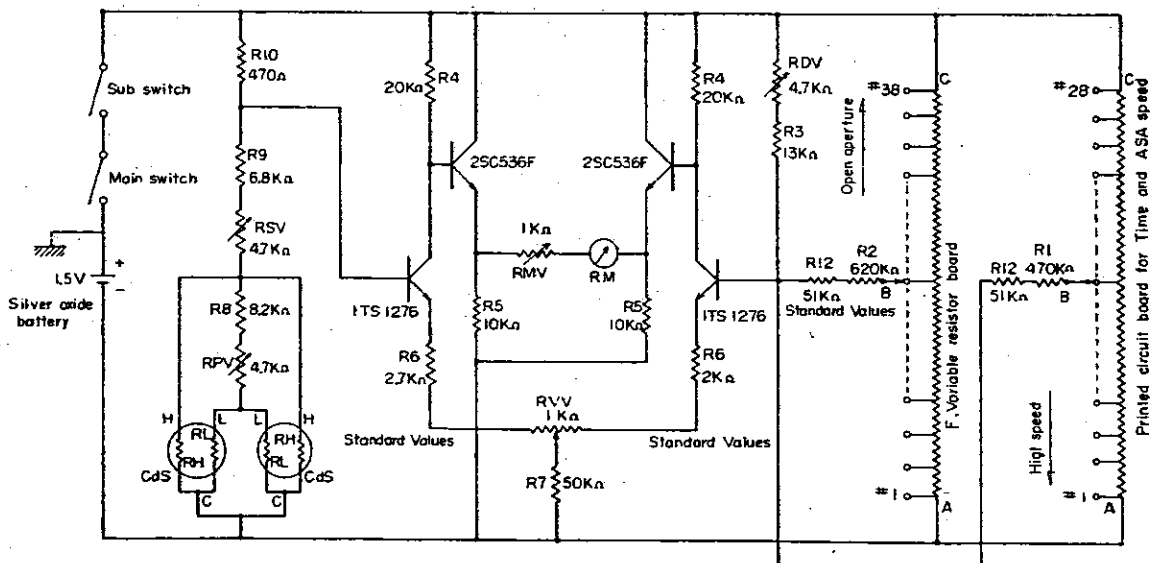
CdS Prism Finder for Mamiya M645 (SLS 6500)





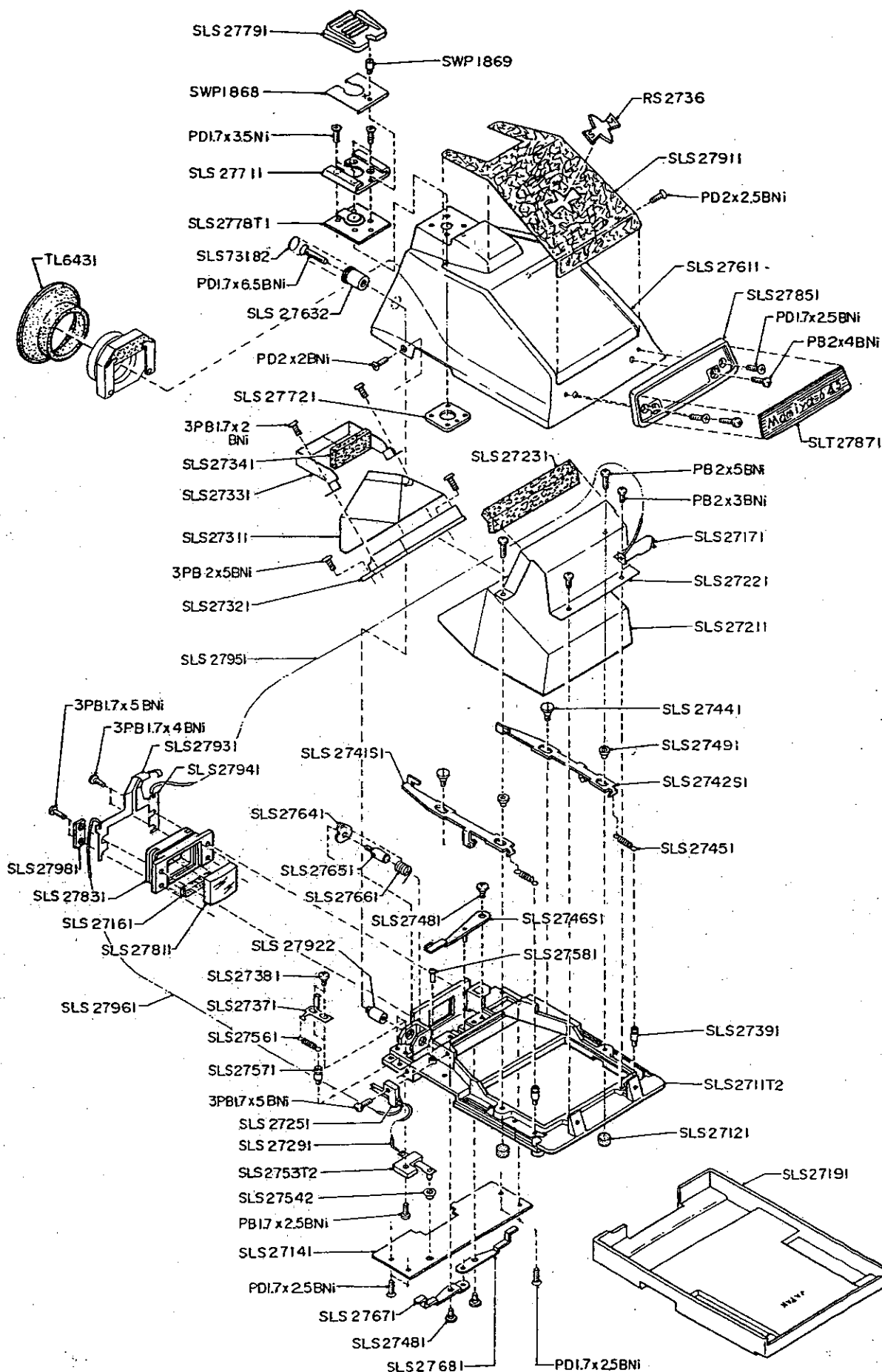


for CdS Prism Finder



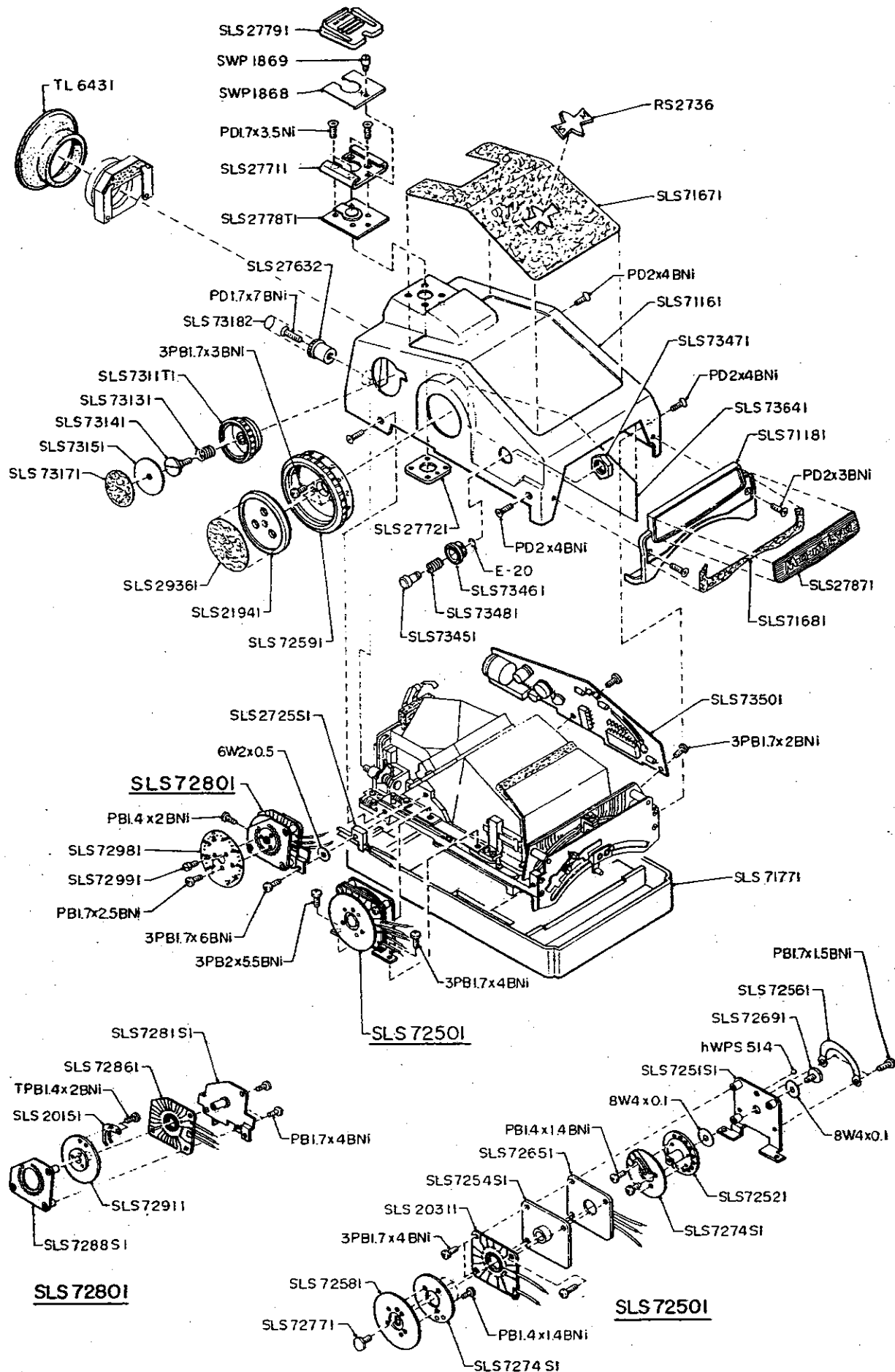
Prism Finder

for Mamiya M645 (SLS 2700)

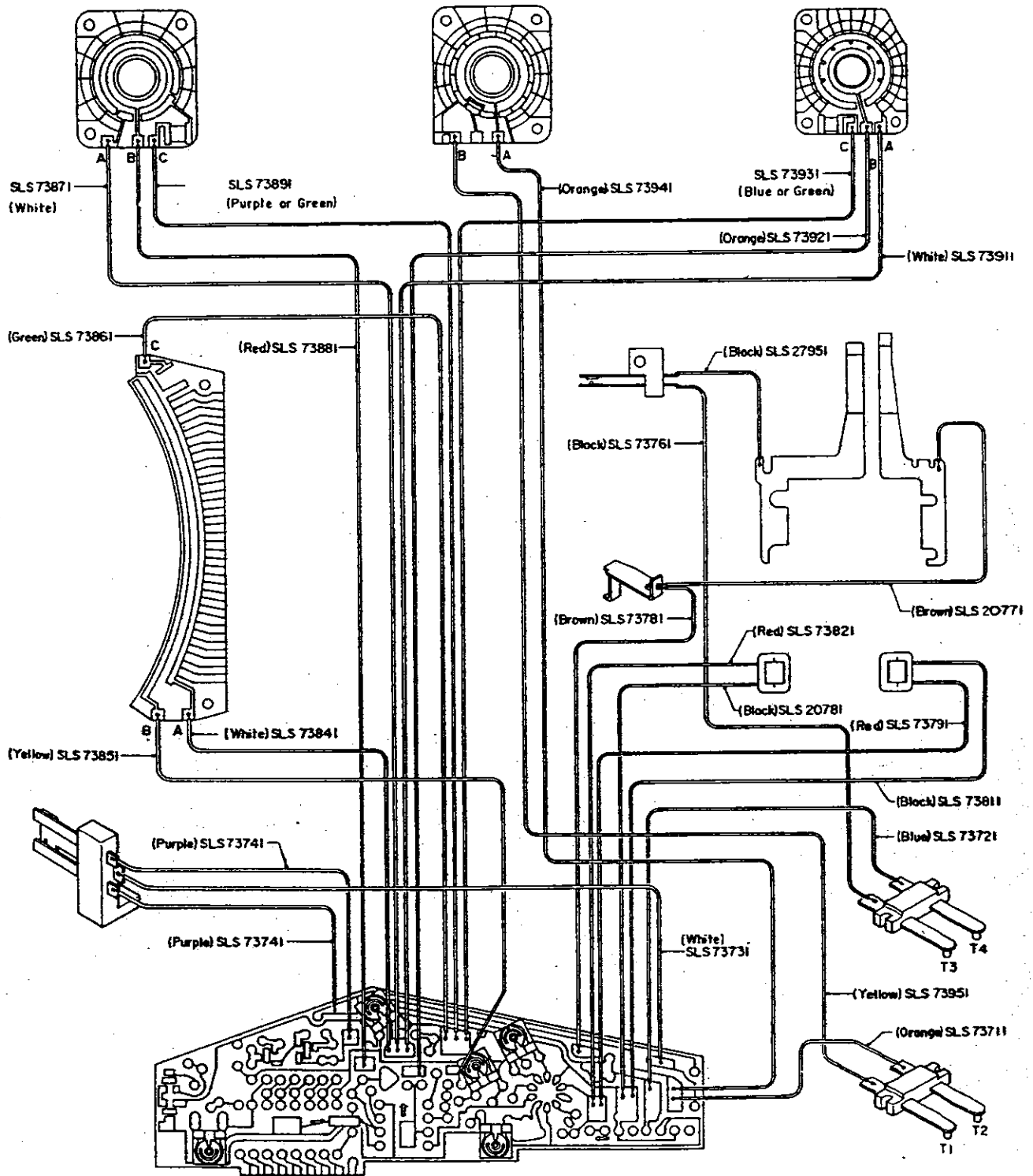


PD Prism Finder

for Mamiya M645 (SLS 7100)

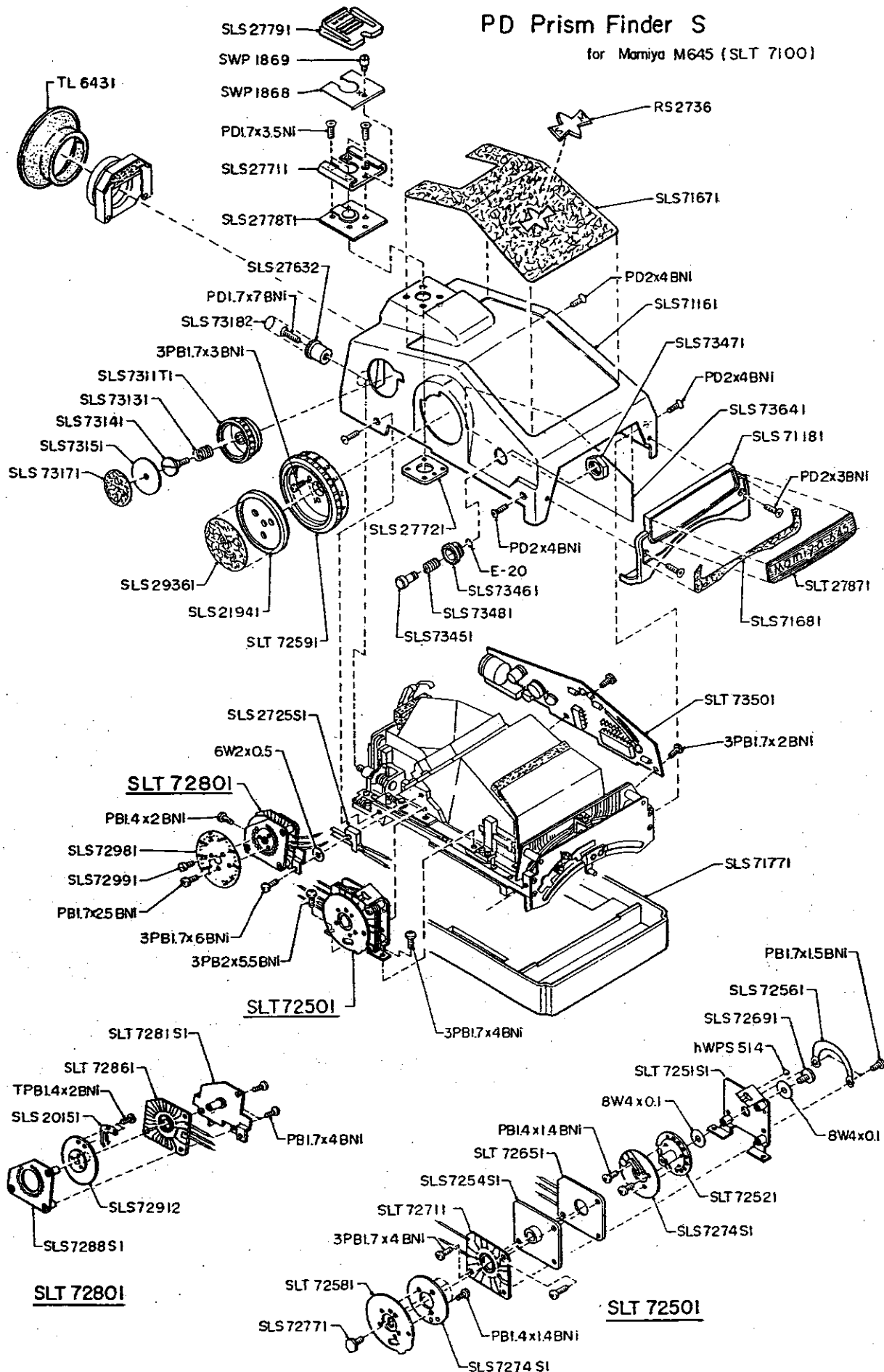


Electric Circuit Diagram for PD Prism Finder 1/500



PD Prism Finder S

for Mamiya M645 (SLT 7100)



Mamiya